

THE

# Desert

M A G A Z I N E



APRIL, 1941

25 CENTS



# Writers of the Desert . . .

Life means romance to BETTY WOODS who wrote "Lava Frontier" for this issue of Desert Magazine. She found romance when she took a course in writing at Denver University. Her teacher, now a novelist and magazine writer, threw in with the course, a practical demonstration or what a real-life love story might be. She married him to find, as she asserts unqualifiedly, that they do live happily ever after.

While Cleo and Betty Woods have a home at Tyrone, New Mexico, they spend 10 months every year gypsying all over the country in a house trailer. "But most of that time," Betty says, "finds our rubber-tired home here in our Southwest beside some great natural wonder, a Navajo hogan, a prehistoric ruin or an historic landmark. Perhaps, even, in some spot that holds us by its beauty alone. The more remote or unknown these places are, the longer we stay."

The Woods live truly the royal gypsy life. They go wherever fancy or the season calls. Or wherever they are led by their great love for the Southwest outdoors, with its various manifestations of the primitive, ancient and picturesque.

MARY KEELER SMITH, another writer new to Desert Magazine readers this month is a former school teacher. She spent 23 years of her life teaching brown-skinned youngsters, from the Philippine Islands to the Ute reservation in Colorado.

Mrs. Smith was born and educated in Kansas and taught eight years in rural and city schools in that state. "Then," in her own words, "I went all the way to Manila, P. I. to marry a man by the name of Smith (when the woods at home were full of them)."

"We spent our honeymoon on the mountain tops of Benguet, near Baguio, the summer capital of the islands, in the land of the Igorots, the head-hunters of the Philippines. Later, we went to Cebu where my husband was supervisor of schools, and where I was appointed to teach in the high school. Four months after we reached Cebu, our home was completely destroyed by the worst typhoon that had ever swept the island. Of our furniture we had left a phonograph and an alarm clock, both capable of running when wound up.

"During the years I lived in the Philippines, I taught among the Visayans, the

Ilocanos, and the very cosmopolitan population of Zamboanga.

"In 1926, I transferred to the Indian service and taught for seven years at Sacaton, Arizona, among the Pima and Papago Indians. Then at our request, we were transferred to the Ute reservation in southwestern Colorado, for another period of seven years. However, during the time my husband was on the Ute reservation, I was asked to go to the Navajo reservation and organize day-schools. I worked among the Navajo Indians for three years, then came back among the Utes.

"In 1937, I retired from the Indian service because of physical disability, and came to California."

. . .

Among the manuscripts recently accepted by Desert Magazine editors is one by BARRY GOLDWATER of Phoenix—a vivid story of one of the most desperate episodes in southwestern history—the Bisbee massacre in 1883. This will appear in an early number of the DM. Just how Barry finds time to carry on his varied activities is a mystery. He is one of the managers of a highly successful business concern, is an amateur photographer of high rank, explorer, lecturer, collector of Arizona—and now he is writing magazine features.

. . .

Charles Francis Saunders, about whom HOPE GILBERT has written for the Desert Magazine this month, is the dean of southwestern desert writers. He is quiet and unassuming by nature and since he has been in comparative retirement for a number of years, many readers of his books are not aware that he is still keen and active despite his eighty-odd years. His books are in the library of every student of desert lore and natural science. He wrote the kind of copy that becomes more interesting with the passing years.

## EAST *via* SOUTH



No extra rail fare to go east via fascinating New Orleans and the deep South. Board our famous *Sunset Limited* or *Argonaut* in Los Angeles. Go via El Paso, San Antonio and Houston. Continue from New Orleans to New York by rail. See your nearest Southern Pacific representative.

### Southern Pacific

## WILD FLOWERS

IT'S WILDFLOWER TIME IN  
IMPERIAL VALLEY

The Desert is in Bloom as  
Never Before

Send for our bulletin telling  
where to see them.

## BRAWLEY

California  
CHAMBER OF COMMERCE

# DESERT Calendar

- MAR. 31-APR. 2 Masonic grand lodges of Arizona meet in Phoenix.
- APR. 4-5 Utah cattle and horse growers association meets at Newhouse Hotel, Salt Lake City. J. A. Scrup of Moab, chairman.
- 5 Woman's club flower show at Needles, California.
- 5 Annual White Sands Playday for 4,000 children. Old-timers picnic, Mescalero Indian dancers. Near Alamogordo, New Mexico.
- 5-6 Riverside chapter of Sierra club to weekend in Borrego valley and hike up Palm canyon. John Gabbert, leader.
- 5-6 Palm Springs horse show and hunter trials.
- 5-13 Sierra club pack trip from Rainbow Lodge, Arizona to Rainbow Natural Bridge, Utah. Side trips to Inscription House ruins, Navajo mountain, Colorado river. W. E. (Andy) Andrews, leader.
- 8 Trip to Devil's Cactus Garden and Giant Rock airport, leave from Desert Museum, Palm Springs, California, 9:30 a. m.
- 8-9 20th annual Arizona Pioneers reunion, for old-timers who came to the state before 1891. Phoenix.
- 12 Hiking trip up Magnesia canyon, leave Palm Springs Desert Museum at 9:30 a. m.
- 12 Utah state realty association meets at Ben Lomond hotel, Ogden.
- 12 First community flower show at Chandler, Arizona.
- 12-13 Rainbow and Crystal canyons in Bullion mountains, northwest of Twentynine Palms, California, goal of Sierra club. Tom Noble, leader.
- 13 Annual rodeo at Victorville, California.
- 14-16 Ladies' invitational golf championship, Palm Springs.
- 17-20 Arizona state Elks meet in Kingman. Boulder Dam and Lake Mead trips included in program.
- 18-19 Northern Arizona music festival, campus state teachers college, Flagstaff.
- 18-19 American Association of Health and Physical education convention, Reno, Nevada. Miss Elsa Sameth, University of Nevada, chairman.
- 19 Desert Sun Festival at Twentynine Palms, California.
- 26-27 Weekend trip of Sierra club to Forty-Nine Palms and Inscription canyon. (See Desert Magazine, Dec. 1940.) Dr. Marko Petinak, leader.
- 30-MAY 2 National Women's Aeronautics association meets in Albuquerque. Mrs. Dale Shockley, president of host unit.



Volume 4

APRIL, 1941

Number 6

<b>COVER</b>	DESERT LILIES, by Leo Hetzel, El Centro, California.	
<b>CONTRIBUTORS</b>	Writers of the desert . . . . .	2
<b>CALENDAR</b>	Current events in the desert . . . . .	3
<b>PHOTOGRAPHY</b>	Prize winning photos in February . . . . .	4
<b>PERSONALITY</b>	He Prospected the Desert—for Flowers By HOPE GILBERT . . . . .	5
<b>TREASURE</b>	Lost Yuma Ledge—By JOHN D. MITCHELL . . . . .	8
<b>QUIZ</b>	A Test of your desert knowledge . . . . .	9
<b>BOTANY</b>	Golden Blossoms on the Desert By MARY BEAL . . . . .	10
<b>FOSSILS</b>	Fossil Hunter in the Tropic Shales By JOHN W. HILTON . . . . .	11
<b>PRIZE CONTEST</b>	Announcement of Photo contest . . . . .	14
<b>INDIANS</b>	No-mah the Navajo Weaver By MARY KEELER SMITH . . . . .	15
<b>LANDMARK</b>	Elephant's Feet—By WILLARD BRADLEY . . . . .	18
<b>TRAVELOG</b>	Malpais Frontier—By BETTY WOODS . . . . .	19
<b>COVER CONTEST</b>	Announcement of Contest Winners . . . . .	22
<b>HUMOR</b>	Hard Rock Shorty—By LON GARRISON . . . . .	22
<b>POETRY</b>	DESERT MIRACLE, and other poems . . . . .	23
<b>ART OF LIVING</b>	Vagabond House at 1000 Palms Oasis By PAUL WILHELM . . . . .	24
<b>WILDFLOWERS</b>	Where to find desert flowers in April . . . . .	28
<b>MINING</b>	Briefs from the desert region . . . . .	30
<b>LETTERS</b>	Comment from Desert Magazine readers . . . . .	31
<b>BOOKS</b>	PEOPLE OF THE VALLEY, and other reviews . . . . .	34
<b>PLACE NAMES</b>	Origin of names in the Southwest . . . . .	36
<b>NEWS</b>	Here and There on the desert . . . . .	37
<b>HOBBY</b>	Gems and Minerals Edited by ARTHUR L. EATON . . . . .	40
<b>COMMENT</b>	Just Between You and Me, by the Editor . . . . .	46
<b>CACTI</b>	Miner's Compass, By GEORGE OLIN . . . . .	47

The Desert Magazine is published monthly by the Desert Publishing Company, 636 State Street, El Centro, California. Entered as second class matter October 11, 1937, at the post office at El Centro, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1941 by the Desert Publishing Company. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor.

TAZEWELL H. LAMB and LUCILE HARRIS, Associate Editors.

Richard B. Older, Advertising Representative, 416 Wall St., Los Angeles, Calif. Phone TR 1501

Manuscripts and photographs submitted must be accompanied by full return postage. The Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised for their safety. Subscribers should send notice of change of address to the circulation department by the fifth of the month preceding issue.

SUBSCRIPTION RATES: 1 year \$2.50 — 2 years \$4.00 — 3 years \$5.00  
Canadian subscriptions 25c extra, foreign 50c extra

Address subscription letters and correspondence to Desert Magazine, El Centro, California



## *Storm God in Monument Valley*

By CHAS. L. HEALD  
Berkeley, California

This unusual photograph of a storm in Monument Valley, Utah, is first prize winner in Desert Magazine's February contest. It was taken with a 3½x4¼ Series B Graflex. Exposure 10 minutes, f4.5, about 9 p. m. Panatomic X film.

. . .

## *Navajo Sisters*

By PERCY BROWN  
Lordsburg, New Mexico

Awarded second prize in the monthly photographic contest conducted by the Desert Magazine, this picture was taken with a Rolleiflex, Zeiss Tessar f3.5 lens. Aperture f8, exposure 1/100 second, film SS Panchromatic. These little girls were herding sheep 75 miles north of Flagstaff, Arizona, on the Navajo Indian reservation.

. . .

## *Special Merit*

Considered by the judges to have unusual merit in this month's contest were the following:

Ironwood, by Arles Adams, El Centro, Calif.

Red Rock Canyon, by Robert Schulz, Los Angeles, California.

Squint Eye, by Willard Luce, Blanding, Utah.

The DESERT MAGAZINE







*Charles Francis Saunders in camp under an ancient mesquite near Indian Wells (between Indio and Palm Springs). The tree had been used as a campsite before Saunders moved in. Photo by J. Smeaton Chase, 1915*

# He Prospected the Desert—for Flowers

By HOPE GILBERT

"A CAMPING trip into the California desert? The idea is preposterous!"

This, in effect was the reaction of eastern publishers to Charles Francis Saunders' first submitted articles on the Southwestern desert area in the early 1900s. A desert, to them, was a barren wasteland which no sane person would willingly enter.

"Easterners in those days," confided Mr. Saunders, as I sat with him recently in the upstairs studio-library of his Pasadena home, "were highly skeptical of the attractions of the West. And I proposed to prove to these skeptics they were wrong!" he continued with a twinkle in his clear blue eyes. Mr. Saunders was in an excellent position to do just that, for in 1902 he was an easterner who had come to California, himself a skeptic.

As he recalled those earlier scenes, I

thrilled to his vivid recounting of experiences exploring desert and mountain and studying Indian life 40 years ago. Although now in his 81st year, Mr. Saunders' enthusiasm and interest are as keen as in the years of his first expeditions into the California desert. All about us in his studio were evidences of his continued research and literary productivity. The list of his scholarly but very readable works on the flora of California, the California missions, and Southwestern Indian culture, is long and impressive.

"When circumstances induced me in 1902 to take a leave of absence from the Philadelphia shipping firm with which I was associated," Mr. Saunders went on to explain, "I felt that in setting out for California I was going into temporary exile. Like most of my Atlantic coast compatriots, my whole training and sympathy were centered in the East. Califor-

nia was not then the magic name that it is today. I was as benighted as the majority of Easterners!"

Little did Quaker-born Charles Francis Saunders dream of the rich experiences awaiting him west of the Rockies. The ticket which he bought that autumn day completely changed the course of his life, a change whereby the literature and lore of California and the entire Southwest have been vastly enriched.

The stark beauty of our desert country was a revelation to his Eastern eyes.

"My love of flowers and 'botanizing' was responsible for my first trip to Palm Springs," he said. "Palm Springs in its incomparable setting was in 1902 a small desert outpost populated mainly by persons 'chasing the cure.' The only means of transportation to the springs was by buckboard from the railroad station, six or seven miles distant. The chief establishment there was the health resort founded



Charles Francis Saunders today—in his Pasadena home garden.

in 1886 and conducted by Dr. Wellwood Murray, virtual discoverer and 'dictator' of Palm Springs. A less assuming tent-house resort for convalescents was conducted by a Mr. Crocker. On the site of the present Oasis Hotel were the post-office and a general store run by Mr. Blanchard. Across the road from the village was the Indian reservation.

"The leisurely atmosphere of the springs was typified by Mr. Blanchard's somnolent burro which regularly dozed in the shade of a big cottonwood on the main village street." Mr. Saunders testified from sad experience that although Mr. Blanchard's burro moved with sprightly grace when conveying his master home for the midday meal, this same burro became obstinacy incarnate when a mere tenderfoot from the city of Brotherly Love presumed to mount his back.

Mr. Saunders recalled, however, the glorious outings botanizing with the aid of "mamma's little cart." Mamma was Dr. Murray's wife, but the worthy doctor, a decided Scotchman, was not averse to renting out mamma's property. So it was that in this mule-drawn conveyance of questionable vintage Mr. Saunders would set forth on botanical jaunts. Chino canyon, west of Palm Springs, was one of his favorite spots. With its two springs, one warm and one cool, it proved an ideal camping site.

Locating a rich vein of gold, or discovering a strange new plant—each holds its distinctive thrill. To Charles Francis Saunders have come several such thrills.

"To the man in the street," Mr. Saunders commented, "there may be noth-

ing noteworthy in discovering a rare plant that has been lost to the world of science for 27 years, but to a plant lover it is a stirring experience."

A reminiscent sparkle lighted his eyes as he settled back in his chair and began recalling the incidents of one such experience.

"Ferns," he remarked, "had always held a special interest for me. I knew them in the East as a usual part of the flora of cool ravines and damp woods. I was surprised, therefore, to find them along the desert edge. For several years I had been frequenting the canyons about Palm Springs, but never had I been so fortunate as to come upon that rarest of ferns, *Cheilanthes parishii*, or Lip-fern, which was discovered in 1881 in Andreas canyon by S. B. Parish, the famous botanist who many years ago brought to light so much of our desert flora. For more than a quarter century after Parish's discovery no one found another specimen of this Lip-fern anywhere.

"Then, one March day of 1908, as I was clambering up the side of Andreas canyon, I suddenly caught sight of an unfamiliar fern looking at me from a rock crevice. It was a lacy little thing, two or three inches high. I could hardly believe my eyes. But it was true; I had unwittingly rediscovered the long-lost Parish Lip-fern!

"This dainty desert fern proved a shy, elusive creature. Although I searched for it many times in succeeding years, never again was I rewarded by a sight of it. Seasons came and went, and no one else was any more successful than I. Then, 13

years later, in December 1921, Dr. Philip Munz of Pomona college found a third specimen of it, once again in Andreas canyon. So far as I have heard that was its last appearance to anyone, and Andreas canyon is the only spot in the world where it has ever been found."

In the Mojave desert, northwest of Victorville, Mr. Saunders had another noteworthy experience. There he discovered a bluish purple flower, resembling the wistaria, and belonging to the *Dalea* or *Parosela* genus.

"This flower which grows on a shrub-like plant two or three feet high," Mr. Saunders commented, "has given botanists considerable trouble as to its exact classification. At the time of my discovery of it in 1903, it was classified by botanists as a new species and named *Dalea saundersii*. Since then, however, Dr. Munz has decided it is not a new species but rather a variety of *Dalea fremontii*, a species discovered by John Charles Fremont who passed through the Mojave desert during his western explorations in the 1840s."

Mr. Saunders states that he does not know the exact present status of the name. But, so far as he knows the Mojave desert is the only area where this variety of *Dalea* is found.

There is an exquisite beauty in Mr. Saunders' prose writings on flowers. Each description is a fragrant nosegay, the words being chosen with consummate artistry redolent of desert sand dunes and majestic canyons. "Flowers," says Mr. Saunders, "are an expression of life just as we are an expression of life." He likes to think of them as human companions. In "Western Wild Flowers and their Stories," his latest botanical work, he has gathered an amazing amount of human interest material on the better known wild-flowers.

That first year spent exploring desert and mountain regions completely captivated Mr. Saunders' heart. No longer a skeptic he returned to Philadelphia to hand in his resignation to the shipping firm where he long had been associated, and shortly returned west to devote his time to writing.

Mr. Saunders first acquainted the East with life in the California desert through his regular contributions to *Outlook*, *Youth's Companion*, and other Eastern periodicals. His first real volume on a California theme, "Under the Sky in California," traveled a thorny path before it finally was sponsored by a publisher. The East was still dubious of the West's charms. There was little information about the state being published for tourists at that time. "Our Italy," written in the 1890s by Charles Dudley Warner and playing up the resemblance of Southern California to the Riviera, was the tourist's chief standby and it was out-of-date.

"Every time my manuscript would come back from a publisher," admitted Mr.



Saunders, "I would reread it and still think it was pretty good. So off again I would send it on its way."

In the early 1900s *Sunset Magazine* was being published by the Southern Pacific railroad. Eventually the editor of *Sunset* made a proposition to Mr. Saunders' Eastern publisher to buy 500 copies of "Under the Sky in California" to be given as premiums with *Sunset* subscriptions; and so the book was launched in 1913. This work of Mr. Saunders remained on the publisher's lists until 1939, making a 26-year run for this distinctive volume on outdoor life in the Golden State.

Meantime Mr. Saunders had become intensely interested in the Pueblo Indian country. He made an extended tour of the pueblos, spending several months at Zuñi alone. "The Indians of the Terraced Houses," his first book on the Pueblo culture, had at the beginning a limited circulation. Then it had the good fortune to come to the attention of John Collier, earnest champion of Indians' rights, who was lecturing on the injustices of the government toward its wards. Mr. Saunders' book, stressing the cultural assets of our Indian heritage and decrying its lamentable destruction, coincided with Mr. Collier's convictions and proved valuable material which he incorporated into his lectures.

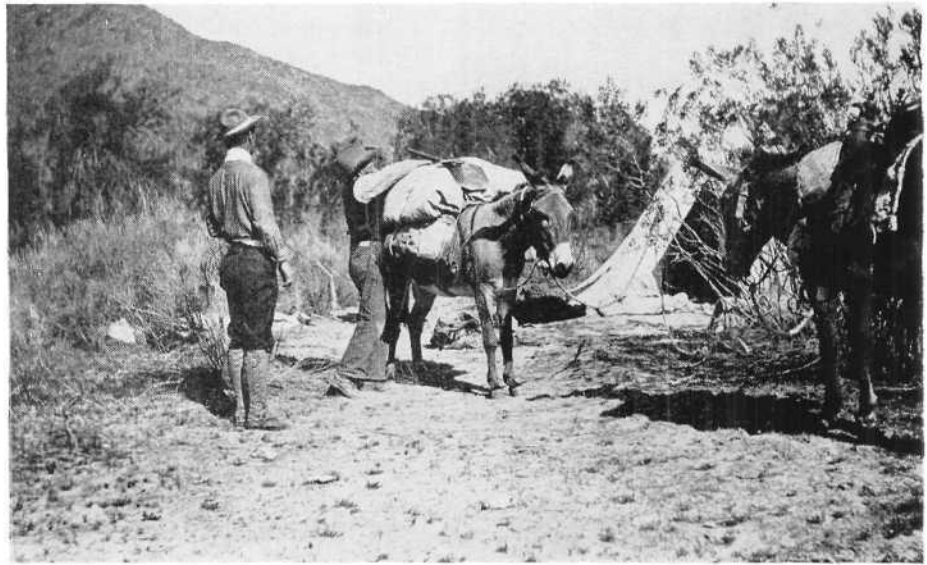
Mr. Saunders lays no claims to being a "reformer." Nevertheless, in his quiet, unassuming way he has had his finger in many movements to safeguard Southwestern landmarks and to better conditions of the indigenes.

In 1916 he made his first trip to El Morro, or Inscription Rock, in New Mexico. El Morro had been made a national monument 10 years before, but the government had never provided for its protection. Mr. Saunders was shocked to discover that the sides of this priceless landmark were becoming defaced with unsightly carvings of no historical value. In an effort to remedy this state of affairs he went to Washington. At the Smithsonian Institution he consulted Frederick Webb Hodge, then head of the bureau of ethnology and now director of the Southwest museum. He found a ready sympathy in Mr. Hodge but received slight encouragement as to the probability of effective action by congress. Mr. Hodge cited this case as typical of Eastern indifference toward the West. "If that rock were in the East," he asserted, "it would have a gold fence around it!"

Mr. Saunders next carried the matter to Franklin K. Lane, secretary of the interior. Mr. Lane agreed to do what he could.

"The resulting action by congress was laughable!" confessed the author. "Money was appropriated for the erection of a wire fence about Inscription Rock, yet no provision was made for a custodian."

Charles F. Lummis, in congratulating



*Sometimes Saunders hired "Dutch" Frank and his burros for pack trips into the desert—in the days before there were paved roads and automobiles.*



*"Mama's little cart" which Saunders would rent from Dr. Wellwood Murray in the early 1900s for trips to Andreas, Palm and Chino canyons.*

Mr. Saunders for his efforts in behalf of El Morro, expressed regret that the barbed-wire fence erected to keep out cattle was not high enough and fine enough to keep out ALL cattle, human and otherwise. Ineffective as the fenced enclosure might be, however, it at least started the movement to provide adequate protection for the Southwest's unrivaled stone autograph album.

Throughout his career Charles Francis Saunders has written for the lay reader rather than for the student. "Every plant has a story to tell," he says, "and it has been my aim to present that story in everyday speech without the encumbrance of scientific terminology."

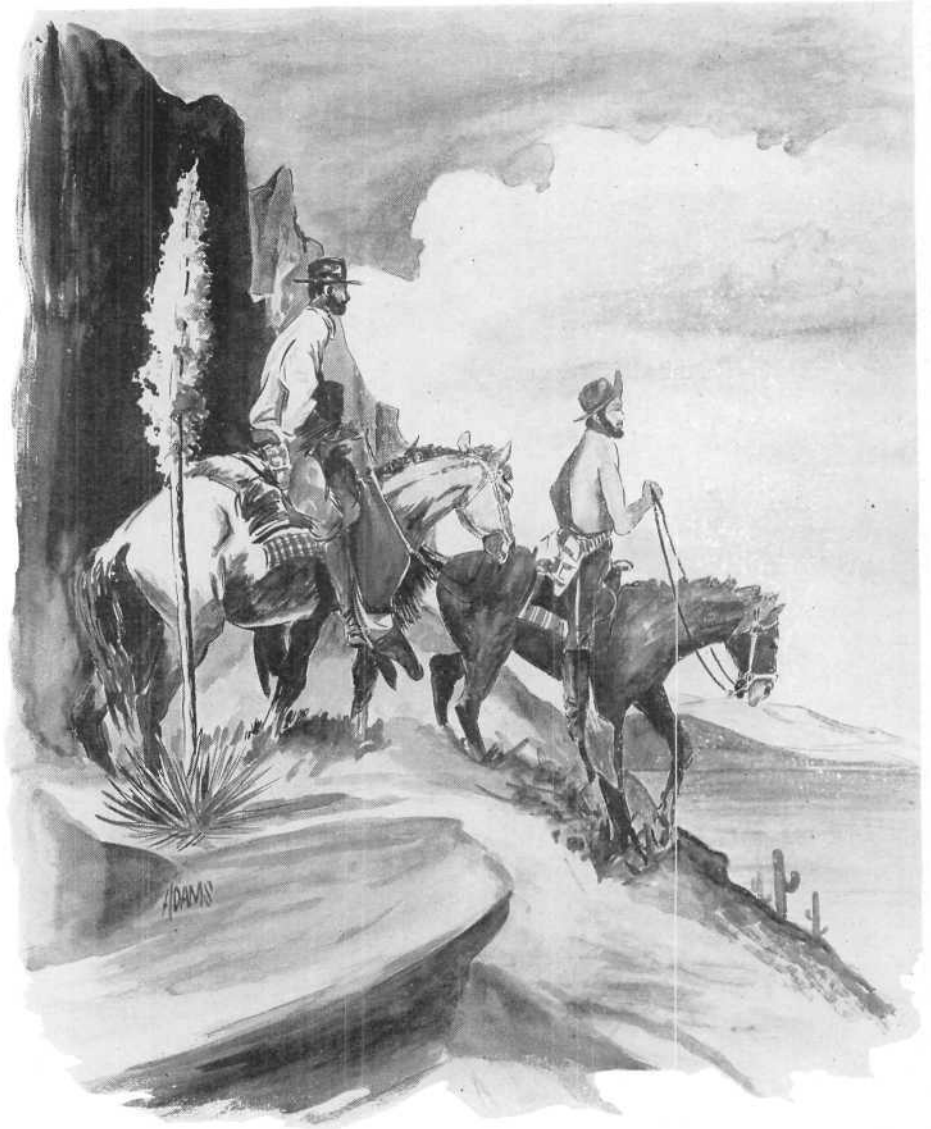
To list a few of his works in which chapters or sections are devoted to desert plant life, I shall mention the following: "With the Flowers and Trees in California," "Western Wild Flower Guide," "Useful

Wild Plants of the United States and Canada," "The Southern Sierra of California," "Trees and Shrubs of California Gardens," and "Western Wild Flowers and their Stories."

Two handy companion volumes by him, "Finding the Worth While in California" and "Finding the Worth While in the Southwest," giving concise, authoritative information on these two regions, have recently been brought up-to-date in revised editions.

At 81, Mr. Saunders does not see as much of the desert as formerly, but his enthusiasm for the arid region with its interesting plant life, has not dimmed since he came here as a tenderfoot easterner nearly 40 years ago. He reported his observations accurately, he wrote them entertainingly, and today his books are read and reread with increasing appreciation for their charm and authenticity.

*Taking a last look around to make sure no Indians were in the vicinity, they beaded their horses down the steep mountainside toward the west—and out into the cactus covered desert below.*



The Apaches disclosed the secret of this rich gold ledge to but one white man—and when he violated their confidence he met with a mysterious death.

# Lost Yuma Ledge

By JOHN D. MITCHELL  
Illustration by Frank Adams

A BADLY rusted Colt revolver such as was used by army and frontiersmen in the early days on the border was recently found in the Arivaipa country near old Fort Grant and is believed by many of those who have seen it to be a clue to the lost Yuma gold ledge said to have been discovered by Apache Indians long before old Geronimo and his band of braves were rounded up and placed on a reservation.

The outcropping of rich gold ore was once shown to a graduate of West Point whose real name seems to have been lost somewhere in the mystic reaches of the past. He is remembered only as "Yuma"

on account of having at one time been acting-quartermaster at the post at Fort Yuma on the Colorado river. Because of irregularities in his accounts the officer was courtmartialed and discharged from the army.

Feeling his disgrace keenly he shunned his former companions and hid himself among the Yuma Indians under Chief Pascual. Yuma was well liked by the Indians and spent his time trading among them. Eventually he married a buxom Yuma woman and became a member of the tribe.

As a trader he made frequent trips with his wife into the Apache country and

while trading among the Arivaipa Apaches he heard rumors of a rich gold ledge where the Apaches obtained rich ore to trade for supplies. Yuma was eager to learn the secret of the rich ledge and after considerable persuasion induced the chief to show it to him. In return he promised a rifle, some ammunition, and a few trinkets.

Soon after the agreement was reached Yuma, accompanied by the Apache chief, set out from the Apache camp in a northerly direction across the hills. After traveling about nine miles they reached a ridge between the San Pedro river on the east and a deep rocky canyon which terminated a short distance to the west of where they were then standing.

Before them in a crater-like depression was an outcropping of rose quartz rich in coarse gold. With his hunting knife Yuma broke off a handful of the brittle ore that gleamed yellow in the morning sunlight. After securing samples the outcrop was carefully covered with dirt and rocks until no sign of the ore remained on the surface. Yuma was not a miner but realized that the quartz was very rich.



Also, he knew it was guarded by Indians who would kill him on sight if they ever found him there again.

After remaining in the Arivaipa country a few days Yuma went to Tucson where he showed the ore to a man by the name of Crittenden whom he had known as a freighter when he was in the army post at Yuma. Yuma and Crittenden decided to return to the Arivaipa country and explore the mine and sample it more thoroughly. Accordingly they set out from the old pueblo of Tucson late one afternoon and after riding all night they arrived early the next morning at Fort Grant.

They refreshed themselves, fed and watered the horses and that afternoon rode north down the San Pedro river. After traveling about 10 miles they made camp in the brush along the river and waited for morning. When the first rays of light appeared in the east they started to climb the steep mountainside toward the west. The terrain was rough and they were forced to lead their mounts most of the way. They soon came to the long ridge overlooking the river and the deep box canyon.

They found the quartz ledge and with a pick dug out 25 or 30 pounds of the rich ore. Putting the ore in a sack they covered the ledge again and hid the pick. Taking a last look around to make sure no Indians were in the vicinity they headed their horses down the steep rocky trail toward the west and out into the cactus-covered desert below. They rode all that night and arrived in Tucson early the next morning without having seen any of the Apaches.

The sack of ore that they brought out was crushed in a mortar and produced \$1,200 worth of gold. Knowing the Apaches were on the warpath and that it would be extremely dangerous to undertake any development work at that time, Yuma resumed his trading and Crittenden continued his freighting operations between the mines and the post at Yuma on the Colorado.

Yuma loaded his pack mules with supplies and with his Indian wife set out across the desert toward the Papago country. That was the last ever seen of them by their friends. There is a story among the Papago Indians at Ajo that Yuma and his wife were killed by a band of renegade Apache Indians whom they met in the Growler pass north of Quitobafuita. They were buried by the Papagos and the piles of rocks marking the graves may still be seen just a few hundred feet west of the old road that leads through the Growler pass and on down to Cipriano wells near the border.

When Yuma and his wife failed to return to Tucson after several months, Crittenden, believing them to have met with foul play, decided to return to the mine alone. Mounted on a fine horse he left Tucson early one morning and after rid-

ing all that day and far into the night he arrived at Fort Grant where he rested for a few days. He revealed his plans to the officers at the fort and as the Indians were in a hostile mood they advised him against making any effort to work the mine. Disregarding their warnings Crittenden departed for the mine. He was armed with a repeating rifle and a Colt revolver.

When several days had passed and he had not returned to the fort, soldiers were sent out and found the horse and saddle about 10 miles down the San Pedro. The horse was tied and was almost dead from thirst. There was no trace of Crittenden. Whether he reached the mine and was

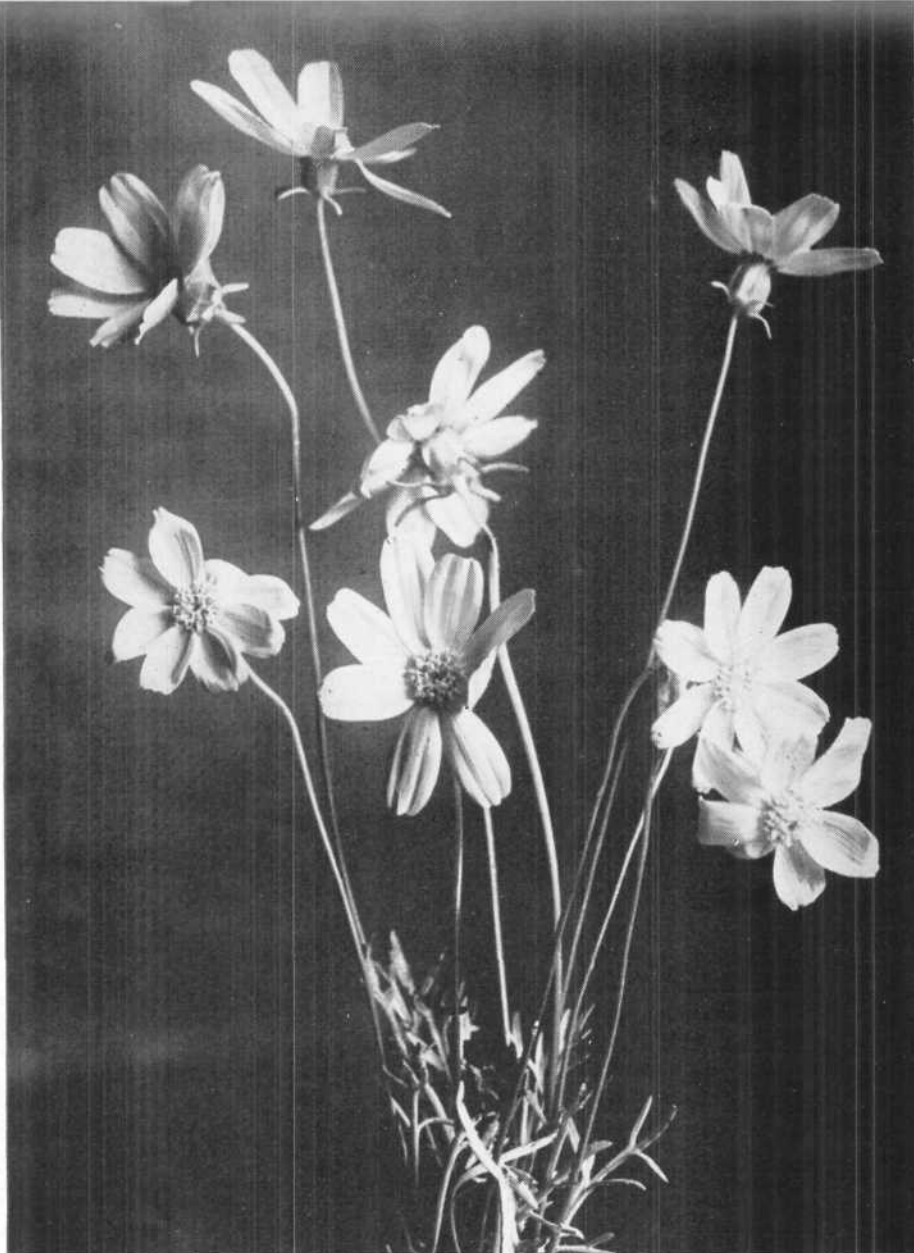
killed by the Apaches, or the victim of an accident, was never known. The fact that an old rusty rifle was found many years ago on the edge of the desert below the mountain where the mine is said to be located, and the finding of a rusty Colt revolver just recently in that vicinity, would seem to indicate that Crittenden either lost his way while looking for the mine or met with an accident and died from the twin demons of the desert, heat and thirst.

The Apaches never revealed their secret to another white man, and it is doubtful if any living Indian today knows the location of the lost Yuma gold ledge.

## TRUE OR FALSE

You have to know your desert well to score high in this test—but you can learn much from these questions and answers even if you don't make a phenomenal score. There are no trick questions. The answers have all appeared in the Desert Magazine at one time or another. They cover the fields of botany, mineralogy, geography, history and the general lore of the desert country. If you get 10 of them right you know more than the average person about the desert Southwest. A dyed-in-the-wool desert rat should be able to answer 15. If you score more than 15 you are either lucky or YOU KNOW YOUR DESERT. Answers are on page 35.

- 1—Rattlesnakes are most vicious when the weather is cold.  
True..... False.....
- 2—Quaking Aspen trees shed their leaves in winter.  
True..... False.....
- 3—Shungopovi is the name of a Hopi Indian town.  
True..... False.....
- 4—First mission at Tucson, Arizona, was established by Father Garces.  
True..... False.....
- 5—Chuckawalla lizards were eaten by the desert Indians.  
True..... False.....
- 6—Pipe Springs national monument is located in Utah.  
True..... False.....
- 7—Sevier desert is in Utah. True..... False.....
- 8—Catalina mountains of Arizona may be seen from Flagstaff.  
True..... False.....
- 9—Some of the Pueblo Indians of the Southwest still use a stone metate for grinding meal. True..... False.....
- 10—The old Butterfield stage line crossed the Colorado river near Blythe.  
True..... False.....
- 11—Blossom of the Ocotillo is always red. True..... False.....
- 12—When completed, the new dam in the Colorado river at Headgate rock near Parker, Arizona will be the fifth dam in the river below Grand Canyon.  
True..... False.....
- 13—Wild burros were roving the Southwestern deserts when the Spaniards first came to this region. True..... False.....
- 14—Ballarat is a famous ghost mining camp in Nevada.  
True..... False.....
- 15—Desert lilies grow from bulbs. True..... False.....
- 16—Grand Canyon may now be reached by boat from Boulder dam.  
True..... False.....
- 17—Green river is a tributary of the Colorado river. True..... False.....
- 18—Azurite is a form of iron ore. True..... False.....
- 19—Hualpai Indian reservation is in New Mexico. True..... False.....
- 20—McNary, Arizona, is famous for its lumber industry. True..... False.....



Generous winter rains bring the promise of an unusually colorful wild-flower display on the desert this year—and one of the most conspicuous exhibits in Nature's garden will be the golden blossoms of *Coreopsis*. It is easily recognized. In her story this month Mary Beal describes the three species to be found on the sandy plains of the Southwest.

## Golden Blossoms on the Desert

By MARY BEAL

EVERY home gardener knows *Coreopsis*. It long has been a favorite because of its long-continued profusion of bright color. The desert too cherishes a *Coreopsis*, a wildling as brilliant and golden as its cultivated cousin and as prodigal of bloom.

Innumerable acres of gravelly desert are emblazoned with the brilliant gold of the *Coreopsis*. Spring scatters its blossoms with such lavish abundance that frequent-

ly the radiance of it attracts the eye of the wayfarer from a surprising distance. Or it may form a harmonizing part of a brocaded design of varied color, spattering with gold the magic carpet of lilac-pink sand verbenas, azure Gilias, tidy little crimson mats, white evening primroses and pale-yellow dandelions.

I hold in treasured memory a gentle slope sheeted with a fairy-like mist of delicate lavender *Linanthus*, accented at

intervals by golden *Coreopsis*, as winsome a picture as spring paints on desert mesas and mountainsides. It is one of the most abundant of the desert flowering plants, so wide-spread that one cannot go far without being attended by myriads of *Coreopsis*, and pretty companions they are.

The flowers are so like the gardener's stand-by as to be easily identified by even the novice. The heads are an inch or two across, with double involucre, and golden-yellow rays centered by an orange disk, atop stems 5 to 18 inches tall, the blue-green leaves being finely dissected. The finest individual of the clan that I ever beheld caused me to pause in amazement. It was a perfect little flower-bed all to itself, nearly 2 feet broad and glorified by 97 open flowers and over 40 buds, lifting up its radiant heads to a height of 17 inches. If any ambitious Desert *Coreopsis* has eclipsed this achievement, I yield to it the accolade and render due homage.

Three species of *Coreopsis* enliven the desert flower parade.

### *Coreopsis bigelovii*

By far the commonest species. Its blue-green leaves, with thread-like lobes, are all disposed in a low basal tuft. The flowers grow singly on slender naked stems, 5 to 14 inches tall (rarely more), the golden-yellow rays oblong or elliptic. The erect inner row of involucre bracts are ovate, the spreading outer bracts very narrow. The flattened oblong achenes are fringed with soft white hairs and tipped with a pappus of 2 slender chaffy awns. Incidentally it's the seed that is responsible for the genus name, which in Greek means "Bug-like," and also inspired the common name, Tickseed, infrequently used. Countless numbers of this species foregather on slopes, foothills and plains of the Inyo, Mojave and Colorado deserts.

*Coreopsis douglasii* is similar, with no difference apparent to the layman. The flowers may be somewhat smaller but the distinguishing variation is in the seeds, which are hairless and have no pappus. It is found in Arizona and Lower California and in the Colorado and Mojave deserts.

### *Coreopsis calliopsidea*

A stouter plant with more luxuriant foliage, the leafy stems from 8 to 20 inches high or rarely more, the pale blue-green leaves divided into 5 to 7 remote narrow lobes, which in turn are often deeply lobed. The golden-yellow flowers are from 1¼ to over 2 inches across, with broad rays. The spreading outer bracts of the involucre are short, broad and rounded, those of the erect inner row are longer and narrower. The disk achenes have long silky hairs on the inner surface and margin. Not found in abundance except in a few localities on plains and hillsides of the central and western Mojave desert. Most frequent west and northwest of Barstow, where it sometimes makes memorable displays of glowing color, carpeting large patches of flat ground and flinging lustrous tapestries over low hills.





*One of the hills near Tropic where fossils are found embedded in the calcareous sandstone.*

This month John Hilton turns fossil-hunter. It was a new experience for John—but he had a good guide and a fertile field for exploration. Finding fossils, and taking them intact from their matrices, Hilton learned, is an art that calls for real skill.

## *Fossil Hunter in the Tropic Shales*

By JOHN W. HILTON



*Herman Pollock's little daughter, with one of the Ammonites found by her daddy in the Utah fossil fields.*

I WENT to Bryce canyon in southern Utah to collect and write about gem minerals. Fossils were the farthest thing from my mind when I entered the interesting little museum conducted by Laura Babb near Ruby's Inn.

Here I found a fine collection of gem stones and petrified wood that had been gathered in that region. Also there were many Indian relics gathered from the caves in that part of Utah. But the thing that surprised me most was the fossil display in Mrs. Babb's shop.

A few questions brought out the fact that the fossil material was all of local origin. Before I realized it I was wanting some of those fossils for my own collection—some that I would go out and find for myself. And so a trip was arranged for the following day.

Herman Pollock, who is both guide and entertainer at the Inn, took my father and me to his home in Tropic to see his

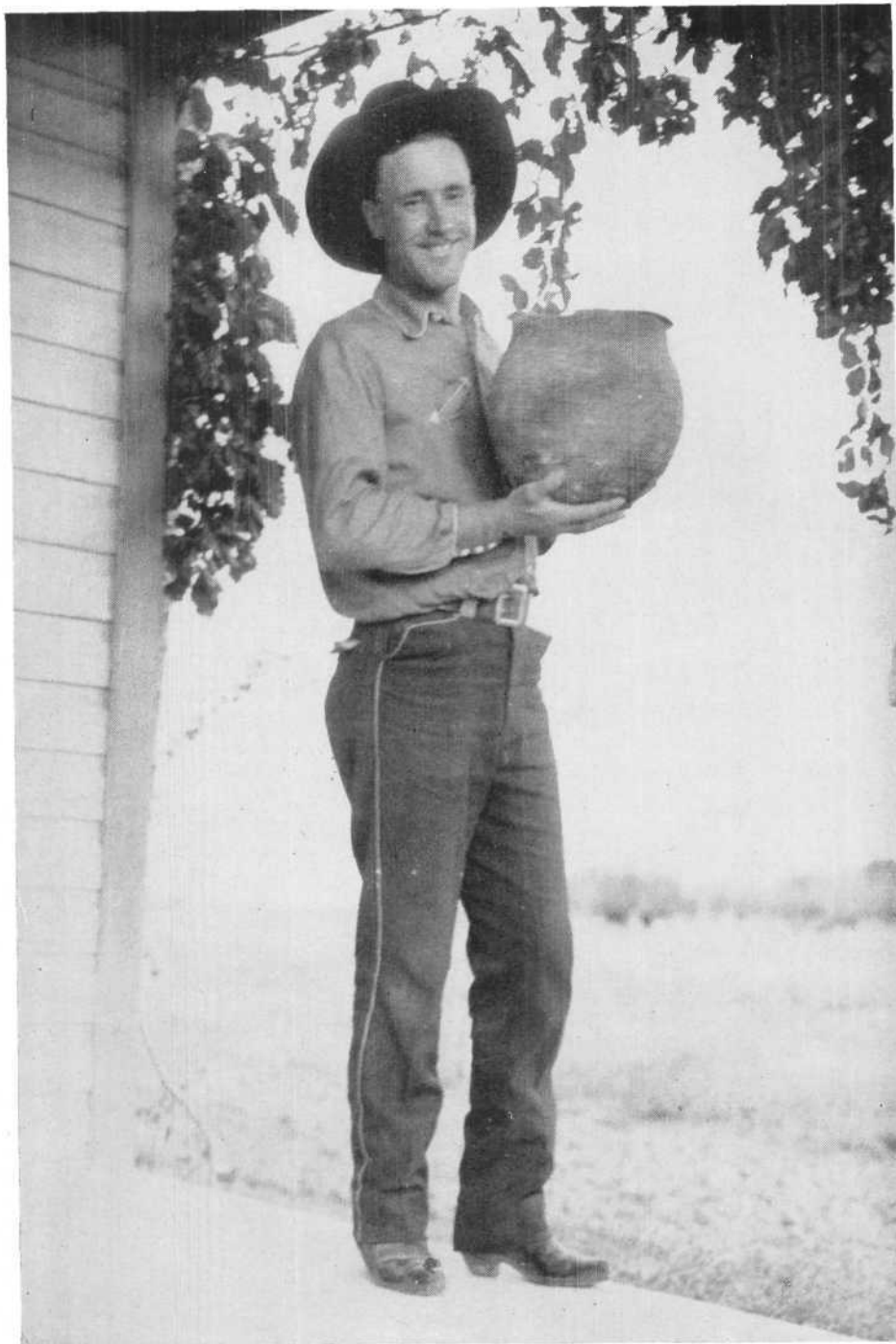
private collection of rocks and fossils. Herman's story is interesting.

He found his first fossil shell while riding range for his father. He was just a boy at the time, and had not yet become interested in mineral collecting. His job was to keep track of a herd of young range cattle. Rocks were just rocks.

Then one day as he was riding down one of the rugged gorges in that area his attention was attracted to what appeared to be a giant snail embedded in the bank above him—too high to be reached even from the saddle.

Being curious, he tossed a rock at the "snail." It fell, but struck a boulder at the base of the cliff and broke into several glittering pieces. He gathered them up and put them in his saddlebag.

Later he showed them to members of his family and friends. Some of the young Mormons who rode the range knew about these shells, and called them "cartwheels."



*Herman Pollock, cowboy-naturalist, who led Hilton to the Tropic, Utah, fossil beds. Here is a piece of Indian pottery found by Pollock as he followed the cattle trail on the Utah range.*

It was not until some time later that Herman showed them to a scientist who stopped at the Inn, and learned they were fossils known as Ammonites.

Herman's interest in collecting fossils dates from that incident. He has found many other Ammonites in the hills there, but never another as large as the broken specimen.

Pollock was our guide on the trip the next day. Our destination was the famous Tropic shales.

The various geological formations, it should be explained, are separated into groups according to the age of their depo-

sition. Each group of sediments has definite characteristics and a general similarity wherever it occurs. It also has a well defined sequence of stratigraphy within itself which, when once established, becomes a veritable index for the benefit of the visiting geologist.

For instance, the geological report of a particular formation may list a three-inch band of coal covered by a layer of sandy material six inches deep and followed by a clay bed containing limestone concretions and fossil Gastropods. Such a sequence of layers, if found in several different exposures of a sediment, is listed as a

stratigraphy feature and becomes a thumbmark to other pages of geological history.

The term "Tropic shales" would lead the uninformed to expect a large mass of nothing but shale. Actually, this sediment is so called to distinguish it from other masses of material above and below it. Layers of coal, clay, calcareous sandstone, limestone, sulphur, bentonite and even pure sand all go to make up the sedimentary mass known as Tropic shales.

Another factor that makes collecting rather easy in the Bryce canyon area is that the geologic mass is identified by a rather distinctive coloration. This starts with a flame-colored formation at the top, eroded into the fantastic pinnacles that make Bryce canyon famous. It is known as Wasatch limestone.

After one has traveled in this area and become familiar with the geological names it becomes easy to recognize the dun-colored masses of Dakota sandstone, the great cliffs of white and reddish cross-bedded sediments known as Navajo sandstone, the brilliant red Wingate sandstone, and the soft pastel shades of the Chinle formation.

The Tropic shales are no exception in the matter of distinctive coloration. One may stand on any hill in the Tropic region and see plainly a wide band of bluish grey material several hundred feet in thickness. In some places it is completely uncovered by erosion and in others it is capped by soft yellow sandstones. The band of grey is Tropic shale.

In some parts of the world a geological formation of so soft a color would be hard to trace, but here the rocks surrounding the Tropic shales are so brilliantly colored as to make this neutral band quite conspicuous.

It is only a short distance from the Pollock home in Tropic to a point on the highway where we could begin looking for fossils. We parked our car and climbed a low hill on our right. As we went up the slope we could see thin layers of poor grade coal and beds of fossil oyster shells. Here and there were groups of small Gastropods or snail-like shells, but they were too soft to make good specimens. For the geologist, however, these may be just as valuable as the hard shiny fossils sought by the collector.

I found some small bivalves of the clam or scallop type that were very well preserved. Herman explained that these probably had weathered out from above. Some of the finest fossils found in this area have been discovered in this manner. The weathering action of the elements seems to extract a shell from its matrix more carefully than can be done by the best trained expert.

Presently we reached a level where concretionary masses of calcareous sandstone protruded from clay-like weathered



shales. Many of these, we noted, had been broken open and here and there were the shining prints of hard fossils, indicating that a previous collector had made a good find.

Herman, however, was not satisfied to spend the day here where others already had looked over the surface. "There are still plenty of specimens here if we want to dig for them," he said, "but since our time is limited I would like to take you farther away from the highway where the field is still undisturbed."

As we stopped to rest at the top of the next hill I remarked about the beauty of this wild region, and asked Herman about its name—Kaiparowitz plateau. He explained it is an Indian word meaning "one armed," and was the Indian name for one-armed Major Powell, intrepid explorer of the Colorado river.

That the Indians did have such a name for the explorer is confirmed in a translation of a speech by a chief of the Shivwitz tribe during a conference between Powell and the famous Mormon Scout Jacob Hamblin. In this speech the chief referred to the Major as *Ka-pu-rats*, meaning "one arm off." Whether this is a mispronunciation on the part of the interpreter is not known. A. H. Thomson, early explorer who gave the name to this plateau refers to it merely as the Indian name for a small peak in the region.

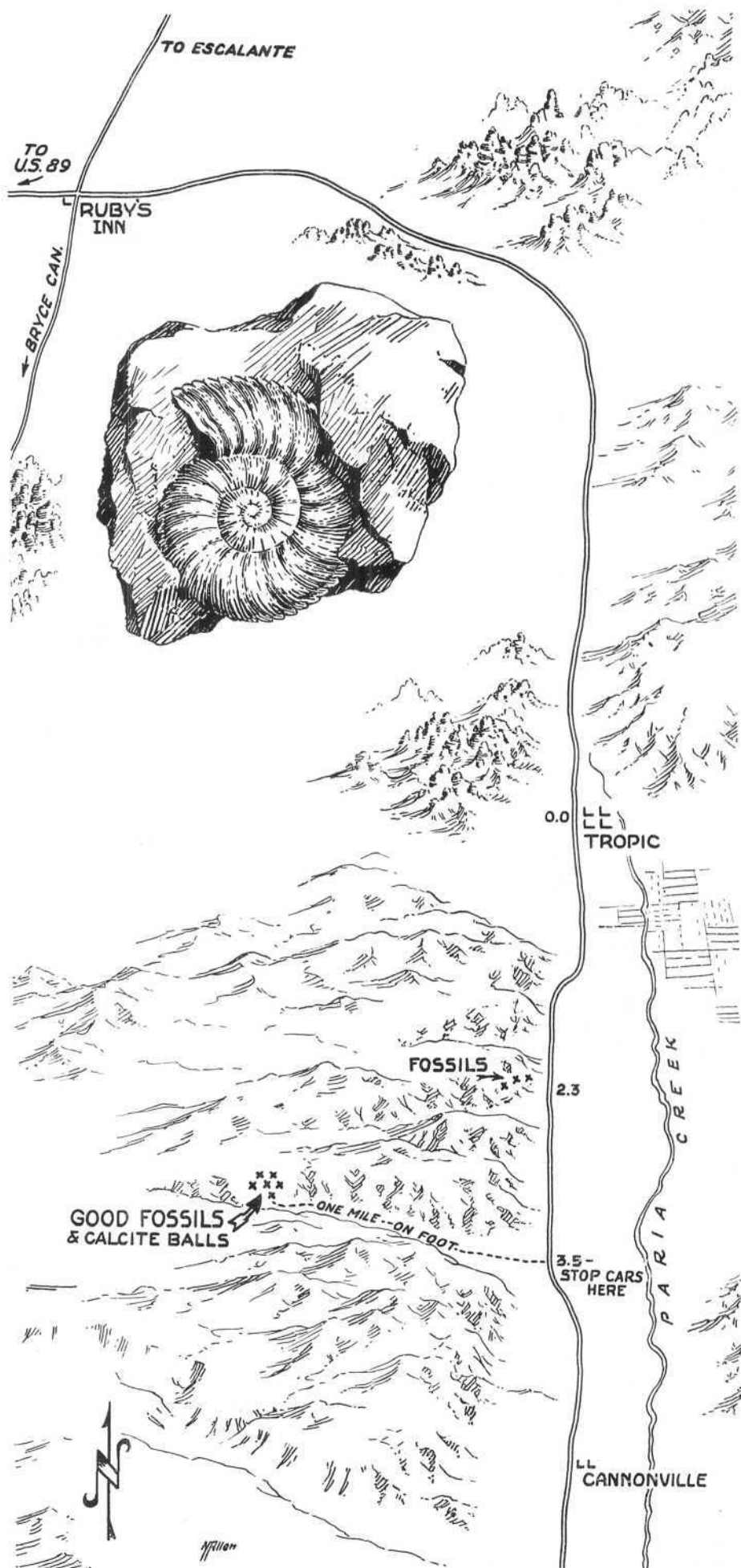
Finally we reached the place Herman had in mind, and started to hunt for fossils in earnest. Here again the concretionary masses protruded from the soft shales and clays in which they were embedded. It was plainly seen that these concretions followed a definite level along the hillside.

The procedure for collecting fossils from hard sandstone, I soon discovered, is somewhat different from ordinary rock collecting. Here the hunter is working blind, for few fossils appear on the surface of the rock. A light blow with a geologist's hammer will usually crack open the sandstone. If a fossil is exposed it becomes a matter of the personal skill of the individual in breaking away the rock.

No matter how careful the rockhound may be, he is likely to break more specimens than he takes out whole. It is a good idea to stop trimming the matrix when half of the fossil is exposed. Usually an attempt to break the matrix material off entirely results in a broken fossil. However, if the broken parts are carefully wrapped in separate packages, they may be assembled with the aid of a little china cement and a lot of patience, and restored to the status of attractive specimens.

This is about the only way that complete fossils of some of the types may be obtained. I refer to such elongated specimens as the pencil-shaped *Belamites* and some of the *Gastropods* with barbs or protuberances.

To reassemble a broken gem stone and



place it in one's cabinet would not give the average gem collector much satisfaction. But it seems that in fossil hunting the gluing together of tiny bits of bone or shell is the accepted procedure.

I noted that here and there in the sandstones were small seams of pale yellow calcite. This material also was evidence in the cavities of some of the broken fossils.

About eight feet above the level of the fossil bearing gravel I found some concretionary balls similar to those I had seen in Mrs. Babb's museum. Examining them, I found they contained the same yellow calcite in lovely patterns. In some instances the hollows were filled with well-formed rhombic crystals of calcite. These might be called "concretionary geodes" and are fine specimens indeed. They all contain calcite in some pattern, so it is best to collect them whole and saw them later. The resulting smooth surface gives one a much more attractive specimen.

It did not take long to discover that this was no small deposit. The Tropic shales extend for miles, and once the collector has become familiar with the layer that carries the good material he can trace it from hillside to hillside for a great distance.

There is a real fascination in this sport of hunting sea shells in the middle of the desert. The ever-present curiosity as to what is in the next rock, and the challenge to the collector's skill in getting it out, combine to make a fossil hunt a trip without a dull moment.

But the real thrill came that night in the cabin at Ruby's Inn. With a portable quartz light built for me by Kenneth Reed I spent the evening testing the fluorescent qualities of the samples we had picked up during the day. We were pleasantly surprised to find that both the calcite in the geodes and the lining of the fossil shells fluoresced. What is more, they phosphoresced after the light was turned off. Some of them held their glow for several seconds.

Collectors who are already interested in fossils will of course enjoy a visit to this field. For those who have always regarded a fossil merely as a dusty something with a number on it in a museum, is reserved the special thrill I felt when Herman Pollock took me out and introduced me to the fascinating novelty of collecting the fossilized organic life of a million years ago more or less.

Here again I want to stress the importance of properly labelling a sample as to locality. You may not know the name at first but this is less important in the long run than the exact data as to where and when it was collected. Most collections, as we know, live beyond a single generation. Eventually they fall into the hands of another collector, and perhaps they may in time reach the cabinets of a scientific institution. In such cases there is nearly al-

ways a specialist at hand who can identify the sample as to specific name—but if there is no location on the tag the specimens may have little if any scientific value.

One more suggestion for those who would visit this area. Allow plenty of time. There is too much to be seen here to attempt to cover it in a day or two. Postpone the trip until you have time to really get acquainted with this interesting region.

• • •

## FIRST 67,947 ACRES IN ANZA PARK APPROVED

At its meeting in February, the California park commission tentatively accepted 67,947 acres of land in the Carrizo and Vallecitos desert areas of Southern California for inclusion in the proposed new Anza State desert park.

While this action is regarded as an important initial step in California's desert park program, there still remain nearly 300,000 acres of desert wilderness in San Diego and Imperial counties which proponents of the project hope to see set aside for park purposes.

Filing fees already have been paid to the federal government on 88,000 acres of this additional land, and Anza Memorial Conservation association and other civic groups are now raising funds from private sources to provide fees for another 209,441 acres.

As California's option on these lands expires June 29, the fate of the park depends on the decision of the state park commission during the next three months.

In the meantime a bitter controversy is in progress, with a San Diego county supervisor leading the opposition to the adding of more lands to the park, and conservation-minded people urging the com-

mission to carry out the program as originally planned.

The 67,947 acres tentatively accepted by the commission lie along Carrizo creek following the route of the old Butterfield stage station. The additional lands sought to be included would extend the park to include Coyote, Fish creek and parts of the Vallecitos range, also parts of Carrizo gorge and the Dos Cabezas areas.

## Weather

### FROM PHOENIX BUREAU

Temperatures—	Degrees
Mean for month .....	58.8
Normal for February .....	55.1
High on February 28 .....	81.0
Low on February 8 .....	42.0
Rain—	Inches
Total for month .....	1.78
Normal for February .....	0.77
Weather—	
Days clear .....	5
Days partly cloudy .....	6
Days cloudy .....	17

G. K. GREENING, Meteorologist.

### FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month .....	62.4
Normal for February .....	58.6
High on February 11 .....	80.0
Low on February 8 .....	43.0
Rain—	Inches
Total for month .....	0.50
72-year average for February .....	0.42
Weather—	
Days clear .....	9
Days partly cloudy .....	12
Days cloudy .....	7
Sunshine 77 percent (238 hours out of possible 308).	

Colorado river — Discharge for February at Grand Canyon 497,000 acre feet. Release from Boulder dam 503,000 acre feet. Estimated storage February 28 behind Boulder dam 23,411,000 acre feet.

JAMES H. GORDON, Meteorologist.

## Prizes to Amateur Photographers

Each month the Desert Magazine offers two cash prizes for the best camera pictures submitted by amateur photographers. The first award is \$5.00 and the second \$3.00.

Pictures are limited to desert subjects, but there is no restriction as to the residence of the photographer. Entries may include Indian pictures, rock formations, flowers and wild animals, canyons, trees, waterholes — in fact everything that belongs to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the April contest must be received at the Desert Magazine office by April 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3 1/4 x 5 1/2 or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the April contest will be announced and the pictures published in the June number of the magazine. Address all entries to:

**Contest Editor, Desert Magazine, El Centro, California.**



This is the story of a young Navajo Indian woman who lives near the western boundary of New Mexico. She has never attended school, does not read nor write, and some would call her ignorant and uneducated, but along certain lines, and in certain skills, she is far better educated than I am, and I have spent years in school.

She can take complete charge of a flock of sheep, caring for the lambs, and seeing to it that the whole flock gets the best pasturage within the shortest walking distance of her home.

She can shear sheep as fast and as well as any man in her community. She knows how to wash the wool and dry it, dye it, card it and spin it into smooth yarn and weave it into wonderful rugs or blankets. That is quite an education in itself.

She is an excellent horsewoman, and in spite of her voluminous skirts, of which she seldom wears

less than three at a time, she can ride any horse that she can bridle and saddle.

She knows how a hogan should be built and often helps her father in the construction of one. She can cook successfully over a small, open fire, her only cooking utensils being a coffee pot, a kettle and a frying pan. She sweeps the hard dirt floor of her hogan with a broom which she made of small twigs bound together.

She has no time-piece, but she can tell the time of the day or night by the sun or the stars.

In case of sickness, she knows which herbs relieve pain, and usually calls on the white doctor only as a last resort, and with very little faith in him, at that.

So I would not call her ignorant, but educated by her own people in practical ways for her life on the desert.

## No-mah, the Navajo Weaver

By MARY KEELER SMITH

**N**O-MAH, the pretty daughter of Hosteen Begay, sat at her loom under a shelter of juniper boughs, just outside the hogan, and her deft fingers wove the smooth yarn swiftly into the design of the blanket she was making. "No-mah, ni-zon-i bitso-i" (No-mah, the beautiful daughter) her grandmother called her, for she loved her granddaughter not only for her looks, but also for her industry.

No-mah felt that she must hurry and finish this blanket and take it to the trader at Redrock. He would weigh it and give her the white man's goods in exchange; she would get cloth for a new skirt. She must ask also for *go-bweh* (coffee) for grandmother and *alth-kes-di-sih* (candy) for Chee Yazzy, her four year old brother. Maybe there would be enough *be-so* (money) due her so that she could have some of the sweet chewing gum, which the trader sold. It was so much better than the piñon gum, although she liked the piñon gum when she was up in the mountains. So ran No-mah's thoughts as her fingers flew at her weaving.

Her little brother came out of the hogan and said, "No-mah, come play with me." But No-mah, thinking of all the purchases

*The Navajo Weaver. Seated before her crude loom, she weaves upward, rolling her rug at the bottom as her work progresses. When she started her weaving, she sat on a sheepskin on the ground until her weaving was shoulder high; from then on, she sits on a stool. The rug now in her loom will contain the figure of a Navajo dancer. She has finished the feet and legs and a part of the dancer's skirt. Frasher photograph.*



she would make, replied, "No, Chee Yazzy, *be-so bi-ki nash-nish*," (I am earning money.) "Soon we will go to the mountains; then we will play and have much fun."

The summer days were becoming very warm; the sparse vegetation on the desert was already dry and brown. Even along the sandy wash, the sheep had nibbled the green grass down to the roots. The animals could find little to eat and spent much time lying in the shade of the scrubby juniper trees, or under the stunted cottonwoods along the arroyo. Across the sun-drenched land No-mah could see the sand-devils whirling over the dry mesas, promising more heat. Her grandmother believed that these whirlwinds were the souls of bad men who were not allowed in the Happy Hunting Ground, but were punished by being blown and whirled across the desert all summer long. So No-mah hurried with her weaving. Perhaps tomorrow she could go to the trading post. A little more grey yarn in this corner of the background, a little more white in the end of the design, a little break in color here, leaving a place for "her mind to escape," then a border of black along the end, and she would untie it from the loom, brush off all the loose wool, roll up her finished blanket so she could carry it on her horse to the trader.

She was sure the trader would like it, and praise her fine weaving, for he had told her before that her blankets were the best that were made at Redrock, and he always paid her the highest price for her good work.

As No-mah finished her blanket, her mother and grandmother came out of the hogan and sat with her in the shade of the "summer house." Her grandmother asked, "How much money will you get for your blanket, No-mah?" And No-mah replied, "*Be-so nez-nab, Si-mah-tsani*," (ten dollars, grandmother) and I will buy something for you. Tell me, grandmother, who taught the Navajo women to weave blankets."

Grandmother settled herself comfortably on some soft sheepskins and said, "My mother told me that long, long ago a woman was walking away from her hogan and she saw a little hole in the ground. She stopped and looked into the hole, and some one under the ground said, 'Come down here.' The woman said, 'I can't come down; the hole is too small.' So the hole opened up and let the woman go down, and there she saw the Spider Woman and her husband, and the Spider Woman was weaving a blanket.

"The Navajo woman watched the Spider Woman make four different blankets, then she went back home and made a loom, but she had no silk like the Spider Woman used, so she went out onto the mesa and gathered wild cotton and spun it into yarn.

"When she wanted some colored yarn,

she gathered the flowers that grew on the mesa, put them into a round hole in the Big Rock, covered them with water, threw in some hot stones, and boiled the flowers until the water was a bright color. Then she dipped her white cotton yarn into this dye until it was the color she wanted. She also gathered sumac berries and bark and the gum from the piñon tree and made other colors which she wove into her blanket in beautiful stripes.

"When her people asked her who taught her to weave blankets, she always said, 'The Spider Woman taught me, and she said I must always leave a spider hole in the center of my blanket, or it would bring me bad luck.'

"When the other Navajo women learned to weave, some of them made cords of yucca fibers and wove in feathers, making warm feather blankets. Others used tufts of rabbit fur with the yucca fibers, which made soft, warm blankets. They also used the wool of the mountain sheep when the hunters brought one home. But it took a long time to make these blankets, because the material was hard to find.

"My mother also said that some of our women were once stolen away by the Hopi Indians and taken to the Hopi camp. There they saw the Hopi men weaving cloth from wool. The Navajo women watched the Hopi men and from them learned to weave. Later on, they escaped from the Hopi camp and came back to their own people. Soon the Navajo had sheep of their own, and the women tended the sheep carefully. Their flocks increased very fast and all the women were busy spinning yarn and weaving. They had black sheep and brown sheep, as well as white, so they had black, brown, white and grey yarn to weave into their blankets, without any dyeing."

No-mah said, "But I wouldn't want to weave without the beautiful red Germantown yarn which the trader trades me for wool. When did the Navajo women first learn to use Germantown yarn, grandmother?"

"When I was a little child," grandmother replied, "not as big as Chee Yazzy, the white soldiers from Washington came to *Tsehb-ho-tso-i* (Ft. Defiance) and had a big battle with our people. Many Navajo were killed and the ones who were left were captured and taken on the Big Walk to Hwalte, which the white men call Ft. Sumner. We walked for many, many days. Some of the old people fell down and died on the way. When we got to Hwalte, we were very tired and so hungry.

"The white men gave us corn and meat to eat, but we did not have our sheep, and my mother said the Navajo women were not happy, because they had no sheep to care for, and no wool to weave into blankets. My mother said that some of the Navajo women went to the trading post at Hwalte and saw Germantown yarn. It was nice and smooth, but not as hard and

tight as the Navajo yarn.

"We were kept at Hwalte for four summers and four winters, then the white soldiers said we could go back to our own country if we would promise not to fight, or kill, or steal any more. Our men promised that they wouldn't fight any more, and when we got back to *Tsehb-ho-tso-i*, the soldiers gave us two sheep for every man, woman, and child.

"We built our hogans, and planted our corn and beans. We took care of our sheep and began weaving our blankets, but we did not forget about the nice, smooth yarn we had seen at Hwalte. The trader got some Germantown yarn for us, and we paid him with wool from our sheep. But the women who live a long way from the trading post still dye their wool and spin all of their yarn."

"Grandmother, did you ever see a Bayeta blanket?" asked No-mah.

"Yes," said grandmother, "my mother had one which was very, very old."

"Why was it called Bayeta?" No-mah asked.

"Because," replied grandmother, "the colored threads woven into these blankets came from cloth which the Navajo got from the Spanish soldiers. The cloth was called 'baize' and the Navajo women took this bright colored baize, unravelled the threads, re-twisted them and wove them into their blankets with the native wool."

"When I was a girl," said *Amah-tsani*, "all the wool had to be washed with yucca suds, and then picked apart by the fingers. Now we can buy soap from the trader, and we have our wool cards which clean the wool much faster. Work is easier now."

No-mah's father came up from the wood-pile with a small armful of dry wood. No-mah looked up with a smile, "Father is hungry," she said. Her father returned her smile and said, "*Go-hweh sa-nil-bez*," (Make me some coffee.)

No-mah gathered cedar bark for grinding and lighted a small fire where three fire stones had been placed outside the hogan. It was too warm to have a fire in the hogan, now. She filled the coffee pot and placed it on the fire stones. Soon the pungent odor of burning wood was mingled with the fragrant aroma of coffee. Then she placed mutton on a crude grate over the hot coals and took flour and salt and water and stirred them into a stiff dough, then patted it into thin, flat cakes to be fried over the coals.

Next morning as the sun was rising, No-mah saddled her horse, took her new blanket and left the camp. She reached the trading post just as the trader was sweeping the floor.

"*Ya-a-teh, No-mah*," he greeted her.

"*Ya-a-teh*," No-mah replied quietly, "*bi-li-ga-na bi-yel ba-sab*," (Good morning; I have come for the white man's goods.)

The trader weighed her blanket. "That is a fine rug, No-mah; I will give you ten



dollars in trade for it." No-mah made her purchases carefully, remembering to include something for each member of her family. Then she put all of her goods into a grain sack, tied the sack securely to her saddle, and departed.

The July sun shone softly through the clouds over the Luka Chuka mountains, whose pine covered peaks at this season of the year are so often draped in clouds. Showers had been falling every afternoon for a week, and the clean-washed mountain air was redolent with the fragrance of pine.

A narrow, rutted road, which had crossed the desert from Shiprock to the Red-rock trading post, turned abruptly to the left, and skirting sand dunes and arroyos, climbed steadily up from the hot desert sands to the cooler foothills and the piñon trees. Here it widened and seemed to pause as it crossed a little stream of cold spring water, then turning left, and now right, the road seemed to hurry on up, climbing and twisting a tortuous way around the shoulder of the highest peak, up among the giant pines and the nodding aspen trees.

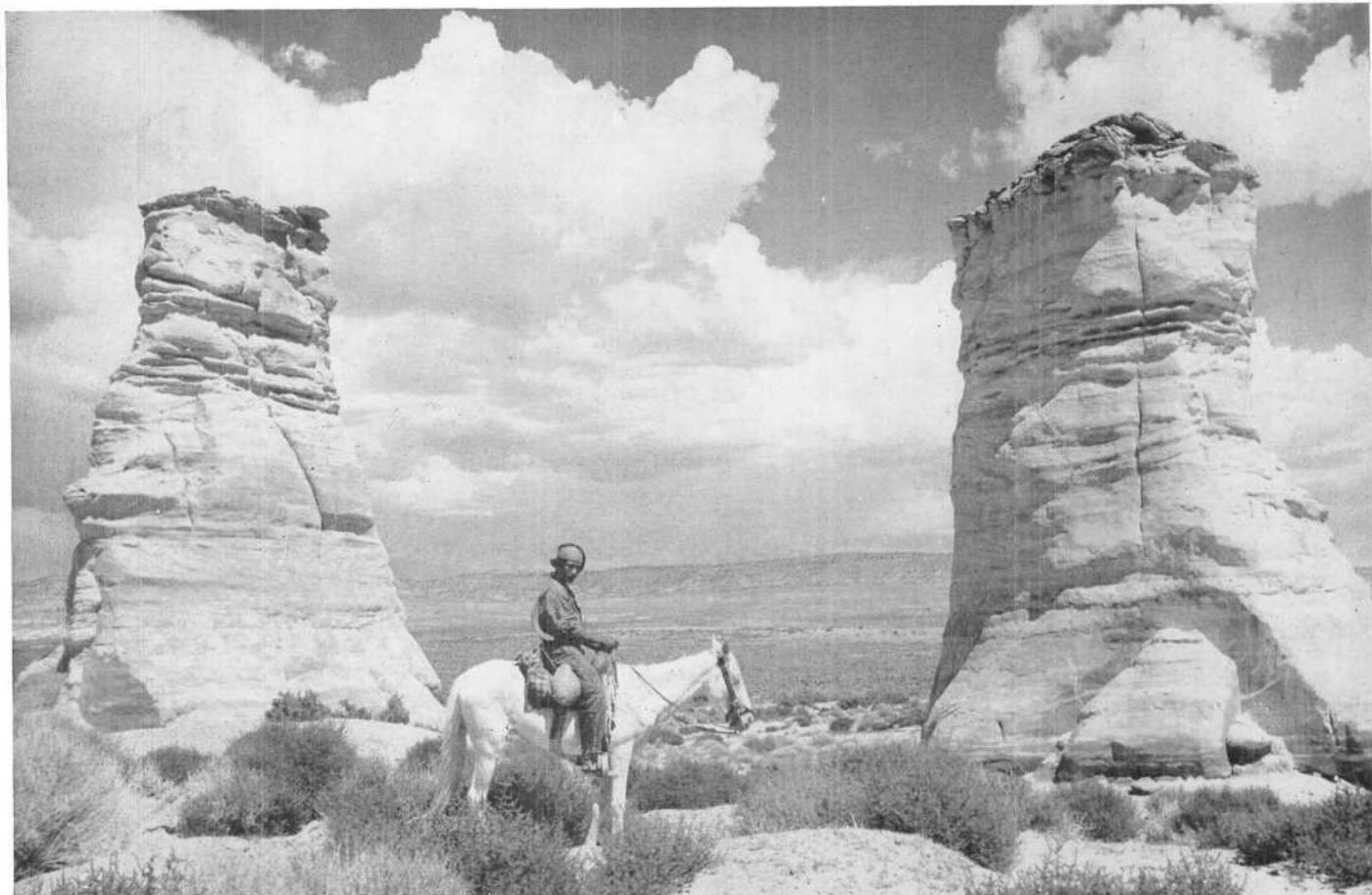
Mountain ferns stood three feet tall and mingled their lacy greenness with the delicate blue and white of the wild columbine. In little clearings, where the pines had been cut the grass grew lush and sweet. Here and there, in the natural depressions, were small lakes of water from the slowly melting snowdrifts. Here were flowers, birds, chipmunks, and squirrels. Occasionally, a black bear ambled his way clumsily among the trees.

Into this fragrant mountain pastureland, with their flocks and herds, came the Red-rock Navajo to spend the summer months, and so in the late afternoon came No-mah and her mother on their horses, driving their sheep. Behind them, in the wagon, rode father, grandmother, and little Chee Yazzy, with a big bundle of sheepskins and blankets for bedding; a frying pan and a kettle; some flour, sugar, and coffee, a shovel and axe. Father selected their campsite where pasture for the sheep was plentiful, and here he began the erection of a summer home, a small log house on a well drained plot of ground, near a small stream, which he called "sweet water." Here, No-mah and her mother herded the sheep while her father built the corals, for the sheep must be guarded at night against marauding wild animals.

No-mah couldn't express in words her love for these beautiful mountains, but her eyes took on a new luster, her step a new lightness, and there was a joyous lilt in her laughter. All summer, she stored up vigorous health of body and mind, and from her association with Nature in all its forms, the forked lightning of the thunder storms, the zig-zagging streams, the strata of rock, and the stately trees of the forest, she acquired many new designs for her next winter's weaving.



*A Navajo Rug. The colors of this rug are red, white, black and grey. The central figure is the Navajo Butterfly design, in red on a ground of pure white to represent light. Outside of this white space is a border of black in mountain pattern, with the black squares representing a community of homes—a community of homes in the mountains. Surrounding the homes is the grey earth, and above the earth, the white cloud ladder. The saw-tooth border of black and white along the sides of the rug indicate streams of running water. In each corner of her rug, the weaver has placed her "direction pattern." The star rays which end in a square represent north, east, west and south, and the grey ray without a square represents the direction down into the earth; the white ray represents the direction straight upward into the light. The Navajo woman is a sincere student of nature, and what she sees in nature, that she weaves into her rugs. Frasher photograph.*



**ELEPHANT'S FEET** Winner of the Desert Magazine's February Landmark contest is Willard Bradley of Flagstaff, Arizona. He identified the accompanying picture as the "Elephant's Feet" on the Hopi reservation near Tonalear trading post, Arizona, and has given glimpses of some of the other interesting places for the motorist to visit in that great scenic plateau region of northern Arizona. The winning manuscript is published on this page.

By WILLARD BRADLEY

**I**N the northwest corner of the Hopi Indian reservation in northeastern Arizona are the Elephant's Feet, shown in the February, 1941, Desert Magazine.

To reach these interesting natural monuments leave Highway 89 about nine miles north of Cameron, thence follow the Navajo Indian service road northerly 14 miles to Tuba City. From Tuba City continue northeasterly 25 miles to Red Lake or Tonalear trading post. One mile beyond the trading post, on the left side of the road, are the Elephant's Feet. The road formerly passed between them, but in recent years has been shifted to the east.

The resemblance of these two grey sandstone monuments to elephant's feet is remarkable. The spread of the feet and even the toes are clearly shown.

Gretchen Green, world traveler, is authority for the statement that in India it is a well known fact that the circumference of the left hind foot of an elephant is just half the height of the elephant. On this basis, assuming one of these sandstone

pillars is the elephant's left hind foot, the animal would be nearly 380 feet in height. The height of the monuments which Nature has preserved here is between 60 and 65 feet.

Continuing along the road six miles from Tonalear is Cow Springs trading post where the road forks, the left fork going to Rainbow Lodge and the Rainbow Bridge National Monument, and the right fork to Kayenta and Monument Valley. A detour from the Kayenta road will take the motorist to Navajo National Monument where a trail down into Tsegi Canyon leads to the well preserved Betatakin cliff dwelling ruins. Returning over this trail you will see two perfect elephants sculptured by Nature in the red sandstone cliffs. No feet are visible. Just why Nature left the feet so far away on the high desert I do not know.

At Tonalear Johnny Taylor has a trading post and also very comfortable cabins and accommodations for tourists. On the plateau in this area are many Navajo hogans, and here may be seen the real "long hair"

Navajo, his home life and his sheep and goats and horses.

A trip to the Elephant's Feet country should be made without serious road problems during the months of April, May, June, September, October and November. During July and August there is the possibility of summer showers which may cause delay, but seldom a serious hazard to the traveler.

• • •

#### NEW WILDLIFE REFUGE ESTABLISHED

Approximately 51,000 acres in the reservoir above Imperial dam on the Colorado river have been set aside as a national wildlife refuge under presidential order announced by Harold L. Ickes, secretary of the interior on February 28. It is the second refuge set up on federal reclamation projects this year and brings the total number of these refuges to 29 throughout the western United States. Three of them are on the Colorado, the other two at Parker dam reservoir, 155 miles below the Lake Mead, and at Boulder dam. Among other refuges in the arid west are the Salt River refuge in Arizona, the Fallon in Nevada, the Lake McMillan in New Mexico and the Strawberry valley in Utah. The refuges range in size from 1120 acres at the Conconully reservoir in Washington to the 649,000-acre refuge on Lake Mead. Imperial and Havasu, the two latest refuges ordered by the president are said to be ideal for the preservation of waterfowl on the main flyway.





# Malpais Frontier

In New Mexico is a great lava field, so jagged and treacherous and awesome that few humans have ever attempted to explore it—and those who dared have often met with tragedy. It is a place of strange contradictions—blistering heat and perpetual ice, barren and uninviting in its general aspect and yet sprinkled with little islands of pines and wildflowers. Betty and Clee Woods penetrated as far into this black wilderness as it is safe to go—and here is the story of what they found.

*Black acres, with a huge crater in the background.*

By BETTY WOODS

WE were camped—my husband and I—at the edge of New Mexico's greatest lava flow. It extends south from Grants on Highway 66 to Trechado on Highway 32; from Putney Mesa on the east to Inscription Rock at El Morro, on the west. We had come here in search of a remote frontier rich with drama and color—a place not yet discovered by other writers.

After the sun had burned itself down into the unknown sea of blackness, a little old prospector ambled out of the early dusk.

"Howdy, folks!" he greeted, peering at us with eyes aged by sun and wind and sand.

After he was seated by the fire, Clee said, "Maybe you can tell us about the malpais."

"Well," the oldtimer chuckled, "they ain't no man as knows them lava beds complete."

Then, in his inimitable manner our visitor told us tales of gunfights and buried

gold. Of a white city which two aviators have seen hidden deep within the lava. Of endless caves in one of which crude gold-mining equipment still remains. He told us, too, of a queer rock death trap set by red man in a lava cave in centuries long dead; and of a small stone house about which lava had flowed, lapping into one tiny window.

But the most fantastic tale of all was about a redheaded skeleton frozen in ice! Clee and I remained skeptical of that story until later when it was confirmed by a Mexican sheepherder. The sheepherder and his brother told us that they removed the skeleton from the ice cave, but sun and air soon changed it to dust—a ghostly exit for what man? What story behind our story?

The next morning the yapping of coyotes jerked us awake. Forty-five minutes later we set out to explore the flow on foot. Both of us wore thick-soled shoes for protection against the knife-edged lava. We climbed to the tar-hued crest of a high dome to gain an unbroken view of that chaotic blackness.

There it was, sometimes 50 and 60 feet

high. A mass of twisted, snarling black rock. Ropy, gnarled, pitted, a writhing yet inert slice of creation haunted by a few animals and the home of not one human soul. In the distance we could see the pine and piñon wade on trunk-deep into the lava. Yet down at our feet was nothing but the glossy ebony piled wantonly about.

"It's the most fascinating spot I ever laid eyes on," my husband marveled.

"It's the most depressing thing I ever looked at," I spoke my real feelings. "It is so foreboding!"

"That," Clee laughed, "is only your imagination."

We struck out to the west where it seemed blackest, picking our way carefully over the undulating waves of lava. Infrequently, the going would be over level malpais seamed with a million wrinkles. Then the stuff would hump up and break into giant masses or crumple into piles of sharp fragments. No two feet of the lava are the same. The Navajo aptly say of it, "When you go back to the same place, it is always different."

The top of a single pine tree guided us for 10 minutes over wavy black ridges.



*Spring near outlaw cabins. Betty Woods holds the divining rod found at the diggings.*

The lone tree grew out of a grassy sink-hole a stone's throw in diameter. In this vicinity we came on many of these bowl-like formations. Sometimes they were so deep that not even a tree-top gave us a hint that a miniature park, with water and grass and trees, lay just ahead. In shallow swamps cat-tails grew with furry abundance. No wonder that during the World War 1 two army deserters lived here with perfect security—a retreat that no officer could ever find.

Just before noon we encountered what is really the greatest danger in the whole 60 miles of lava. We had been watching a black lizard darting ahead of us; neither had been conscious of a deep hollow sound under our feet until now.

"Listen!" I said.

"What's the matter?" Clee asked.

Then he heard that deep, hollow sound from below. We were on the roof of a "blister" or a great "pressure dome!" This roof, only inches thick, might break through any second and send us crashing to death.

I foolishly tried to make myself lighter as I ran to safer footing. When our feet ceased to drum hollow sounds, how good it was to know we were on solid lava again. Close by, we saw where a blister roof had fallen in, exposing a hole large enough to hide a three-story building. We must be guided by our ears as well as our eyes.

There were other dangers. Great crevices so deep that the snow never melts at

*Lava wall which surrounds the outlaw hideout. In right foreground are ruins of one cabin.*

the bottom. Some so wide and long that I could picture a bandit horseman riding through, deep down below me, hunting his way into a hideout which even he was never sure of finding. In one of these giant rips Frank Childers found the enormous horns of several mountain sheep.

Lunch time found us at the mouth of a barrel-shaped cave. Inside, an ice-cold streamlet flowed over the lava floor. From somewhere a cool draft stirred our paper napkins as we ate. Later, we yielded to the temptation to explore this cave, but a few minutes tramping revealed that it was one of the many caves which go on and on for miles.

I had an uneasy feeling of how helpless we would be if our flashlights failed, for match flames would be useless with that

mysterious wind sucking through the cave. The going was made more difficult by the thousands of lava slabs which had dropped down from above. Behind these upright slabs we searched futilely for fine, prehistoric Indian pots. Others had found beautiful pottery in such places.

We scrambled back into the welcome sunlight and veered toward the southeast where more pine and piñon fought for root holds. Rabbit bush, lemita and penol grew with determination, and in small, sand-filled cracks cacti bristled fiercely. Deer, wildcats, rabbits, rats and mice shared their retreat with snakes and lizards.

In this more friendly area we picked up a prehistoric Indian trail from the east where, high on a mesa, stand the stone ruins of an ancient village of 400 rooms. Were these the Indians who had left the beautifully decorated pottery in the caves? If so, were they themselves hiding from conquerors? Or were they making offerings to an imaginary god of the malpais?

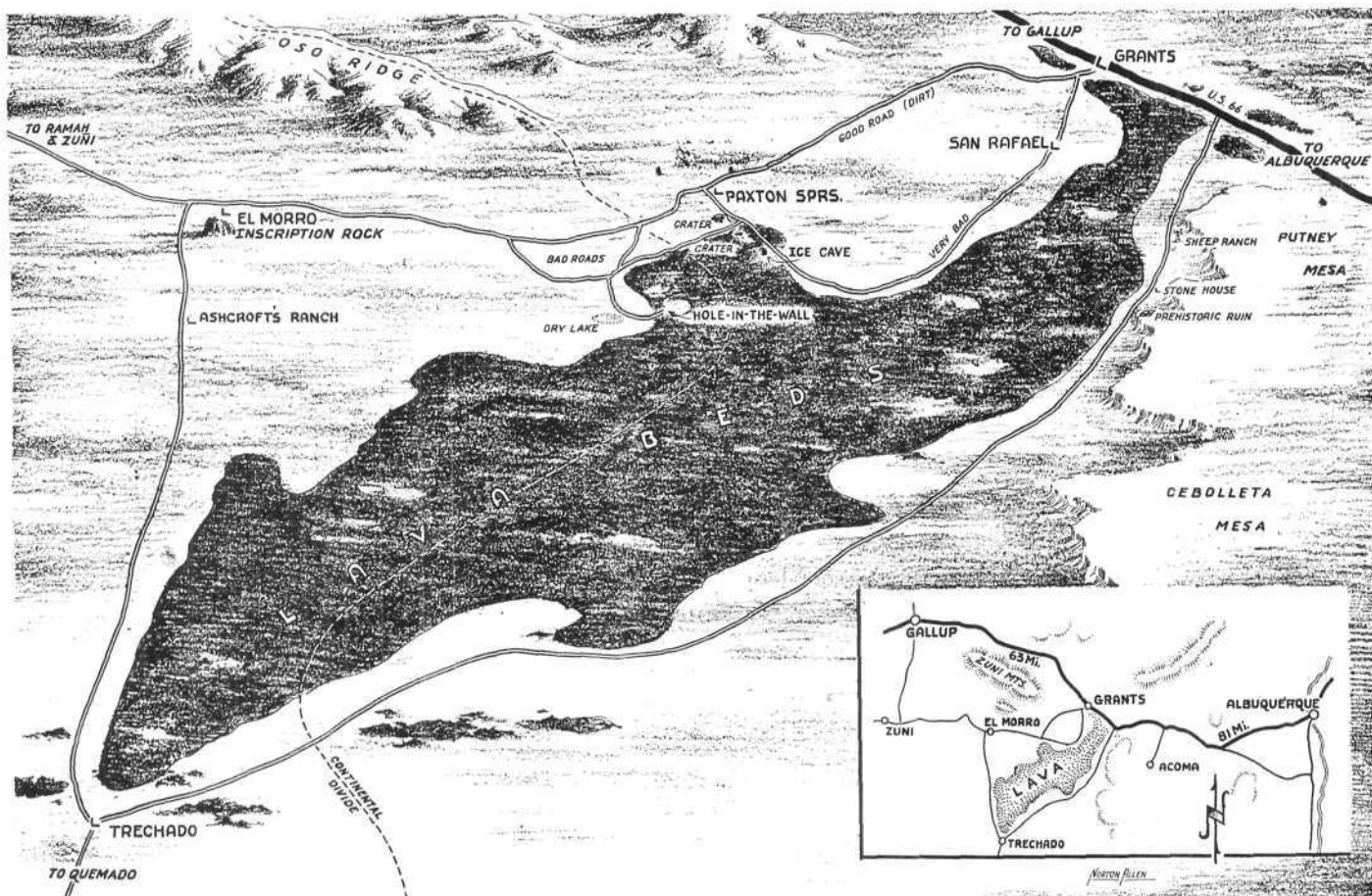
All day we kept coming upon new marvels, yet we had seen very little of this stupendous phenomenon. We were so tired now nothing amazed us. All we wanted was supper and a good night's rest.

The next morning, however, we set out to explore the western side of the flow. Returning to Grants, we took the dirt highway that twists southward through rapidly changing country for 23 miles and finally, at Paxton Springs, seems to die in exploration itself.

In this locality a pair of cinder-covered peaks had blown off their crowns in hectic violence as they disgorged the liquid stone. Very little is known about the malpais region geologically, except for general conclusions based on very limited field study. Much of the flow seems older here,







dating back perhaps 4,000 years. It looks weather-worn and is faded to a brownish-red. There were places where we saw the jet black of two later eruptions spilled out over the old, like giant ropes of ebony.

Between the two craters lies a huge blister from one end of which a small opening leads downward into a large ice cave. In this cave, ice freezes constantly, within a few steps of New Mexico's bright sunshine. Because this is the only ice cave readily accessible, it is visited by thousands of tourists every year, but there are other and more extensive ice caves in the malpais.

In the summer of 1938 three women tourists parked their car within 200 yards of this cave, and took the foot trail to it. They became lost and wandered for three days in the lava. The governor of New Mexico conducted the search for them and they were found only a short distance from the cavern. In fact, they had never been more than three miles from their car!

Leaving the ice caves, we set out in search of the most baffling spot of all the malpais, the mysterious but tritely named, "Hole-in-the-Wall." There were endless miles of dim roads and bare trails, jutting lava ridges, stretches of pine woods and sometimes little dry lakes.

Clee had listened carefully to numerous descriptions of roads and landmarks, but now it was only keen sense of direction that prevented us from becoming entirely lost. For half a day we kept skirting the lava. At sundown we made dry camp.

I was utterly confused, but Clee insisted that we were near the entrance to the old outlaw hideout, the Hole-in-the-Wall. The hideout actually is 20 sections of clear land surrounded by the malpais. Our difficulty in finding this 12,000-acre "island" within the malpais only emphasizes the tremendous size of the lava beds.

At sunup we turned back to find a guide, only to learn that few men even in this region had ever been to the Hole-in-the-Wall. When at last we found a guide, he took us right back along the same roads over which we had retreated!

"How about the buried gold in the Hole-in-the-Wall?" Clee asked.

"Some folks think it's still in there," our guide answered. "Only last month an outfit went in there with a team and scraper. Headed by an old codger what buried it himself when he was just a young but-ton."

"Did they find the treasure?"

"They claim not."

I had heard the story. Two wanted men happened into the Hole-in-the-Wall just at the time a pair of train robbers were dividing their loot—\$50,000 in gold. There was a gun fight. Three men died. The survivor, one of the intruders, was quite young, and the havoc of the fight had terrified him. He dug a hole hastily, dumped the gold into it and got out of there, lest partners of the train robbers appear.

Years passed. The young man, no longer young, came back. Furtively he approached the spot. But cabins had been

built in the clearing and three Mexican children were playing nearby. Sheep were grazing in an adjoining pasture. The man went away, not daring to dig. Forty years went by. He came again. Now he could dig safely with team and scraper. But still the gold eluded him.

Here before us now was the torn-up earth and the stone foundations of the cabins. The searchers had piled out many yards of earth but not one piece of gold.

I wandered over to look at the newest and deepest pit. It was five or six feet deep and 40 feet long. Down in the hole lay a forked stick from a cherry tree. Strange, when there were no cherry trees within miles. Then I knew. This was a divining rod, cut at a certain time of the moon to strengthen its power of locating gold.

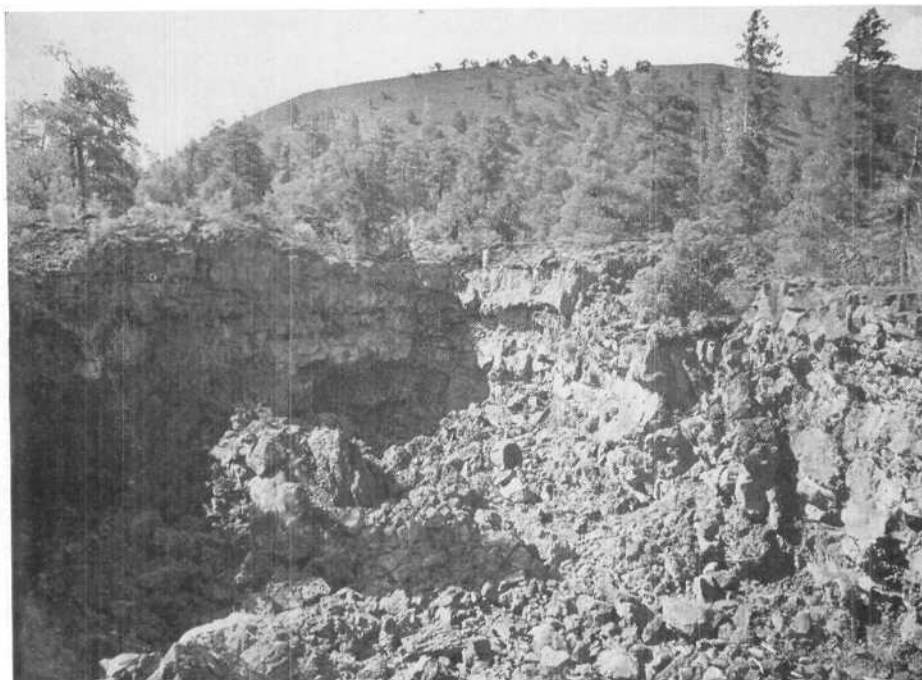
"Sometimes such spirit rods work wonders," said the guide, eyeing my find closely.

Holding the divining rod in a most complicated twist of hands and wrists, he started to walk. Clee stood grinning.

"Now," the guide averred, "the gold, if any, will pull the stick and me toward it. Sometimes the stick will jump out of a locator's hands."

When the divining rod failed to "locate" for him, he walked over to a break in the lava where a spring seeped out. The spring made the "island" a perfect hide-away. Water. Grass. Inaccessibility. One secret trail to it. And, above all, remoteness.

The guide returned to us and handed



*A giant blister, from which an ice cave leads downward at extreme far end. The author may be seen as a light speck on the rim upper center.*

me the divining rod, lamenting, "The gold simply isn't here."

I started back for the cabin site. Accidentally, I dropped the forked cherry stick. When I picked up my find and went on, the guide remained behind. With us safely out of the way, he superstitiously stepped off distances to mark the spot where the divining rod had fallen from my hands. We have often wondered if he ever went back to dig at that point.

Everywhere in this black-walled refuge the grass grows abundantly and tall yellow pines stand at wide intervals to give it a parklike appearance. No wonder it became a bandit haven. Even on this day we were haunted by the feel of its colorful past. I wanted to believe in its legends of gunfights and buried treasure. In its rustled cattle and in its gold mines found and lost in the earth beneath the lava. In that little white city seen only from the sky.

Certainly I could believe in the deep solitude here and in the awesomeness of the black, jagged world about me. We had found our frontier.

## Cover Contest Winners . . .

To Carl E. Lawrence of Claremont, California, goes the honor and the \$15.00 first cash award offered by the Desert Magazine in its Photographic Cover contest which was judged March 1.

The prize picture, which will appear on the May cover of the Desert Magazine, was a Yucca—several of them in fact, photographed in a typical desert setting against a filtered sky.

Second prize of \$10.00 went to Ivan B. Mardis of Tucson for a campfire picture which also will appear on a future cover of the Desert Magazine.

The Cover contest, announced in January, brought 162 pictures from 50 contestants and the judges spent many hours studying the prints before the winners were determined.

Desert Magazine reserved the right to purchase non-winning pictures at \$3.00 each—and nine photographs for future covers were selected under the provision of the rules. The pictures selected were:

"Home of Mr. and Mrs. Packrat" by Fred Hankins, Taft, California.

"Date Palm Garden" by Richard B. Freeman, Los Angeles.

"La Reina del Canyon" and "Joshuas" by Loyd Cooper, Claremont, California.

"Night Blooming Cereus," by L. A. Powell, Oakland, California.

"Red Rock Canyon," and "Titus Portal," by Josef Muench, Santa Barbara, California.

"Joshua Tree" and "Joshua Blossom," by N. Kozloff, San Bernardino, California.

Judging was done by staff members of the Desert Magazine, and the fine interest in this contest as evidenced by the scores of beautiful photographic prints on display for selection, was gratifying to our magazine organization. Eventually, the readers of the magazine will share in the enjoyment of the 11 prints selected.

## Sez Hard Rock Shorty

of  
Death  
Valley

By LON GARRISON



"It was just this mornin'," announced Hard Rock Shorty, "that I heard it over the radio. Seems like they needs pipe fitters an' welders in the shipyards. Maybe I'd ought to tell Gene Banks about it. Of course, he ain't no welder that I know of, an' he ain't had no experience fittin' pipe, but any guy that c'd rig up the pipe line he's got over to his Fried Egg canyon hotel'd be a help to most anybody."

Hard Rock blew the dust off his pipe stem and loaded up with his favorite blend of shavings, hay, and stink powder.

"Yes sir—Gene done all right. Got the idea o' the carbon dioxide gas that comes out o' the ground on his place for a refrigerator for the hotel. Put in a pipe line, screwed 'er up tight, an' froze the refrigerator up solid. Finally he got it thawed out a bit an' the flow regulated and everything was swell.

"Then he decides to cool off a couple o' rooms an' has to change the pipes. When he goes out to look at 'em them pipes is one solid streak o' ice. They was so cold they took ever' drop o' moisture out o' the air an' she froze right on the pipe.

"Well, that didn't make much difference so Gene got a Stillson an' starts untwistin' the last joint. The dang thing broke right off in 'is hand an' when he looks real close he finds out he ain't got any pipe. Somethin' in that gas'd eat out all the pipes right inside the ice an' the gas was just runnin' through a ice pipe.

"Gene looks at that a while, an' then he gets the idea. Except to start with he don't need no pipe. The ice's good enough. An' that's what I meant by him doin' weldin'. The ice pipe'd leak once in a while an' it sure usta look funny to see Gene out mendin' it with a blow torch an' a icicle."





*Desert Lily in the Dunes.*

### DESERT MIRACLE

BY BESS FLYNN  
Coronado, California

My heart was filled with bitterness and woe—  
No ray of hope shone through the clouds of  
gloom;

I ceased to struggle 'gainst the surging tide  
That bore me onward to the gates of doom.  
Like the dying beast, that seeks to hide his pain  
And meet the great "Unknown" in loneliness;  
I sought to hide my anguish from the world  
In the desert broken wastes of nothingness.

When grief and pain seemed more than I could  
bear  
And life's bleakness filled my soul with rude  
alarms

I sought its healing solitude, and found  
Peace and solace in its sheltering arms.  
Great pitying stars smiled down from out the  
blue—

Soft breezes touched my brow with gentle grace.  
'Twas then I heard its wistful, soothing voice  
And learned to love its scarred and rugged face.

The sighing whisper of its ever drifting sands—  
Was like a benediction from the skies;  
Cool shadows reached with friendly beckoning  
hands

To close in dreamless sleep, my tear wet eyes.  
And so, I smile when fools malign its name—  
Calling it sinister, cruel and unkind;  
For I have found within its silent realm  
Infinite courage, and blessed peace of mind.

### ALONE ON THE TRAIL

BY IVAN T. DOWELL  
San Diego, California

The sun has gone down, a breeze has sprung up  
And hurries away o'er the sands.

The planets lean out, and their rays take the  
shape

Of beckoning seraphic hands.  
No sound breaks the calm of the limitless void  
Save the coyote's shuddering wail.

The barren sand hills climb black toward the  
sky,

And I am alone on the trail.

The old moon is up, and her distorting beams  
Form fantastic shapes on the sands;

As the night opens up like the maw of a ghou  
She illumines this strangest of lands.

A jackrabbit flees away—monstrous shape!

From the hills comes the coyote's wail.  
Then measureless silence forever descends,  
And I am alone on the trail.

## In Springtime

BY MABEL HATTON MARKS  
Claremont, California

The Desert! Now a glowing land  
Of elemental fire and light  
From stretch of tawny sand  
To silvered height  
Of mountains; here the warm rains bring  
Rich reds and purples, golds and blues  
In frenzy of wild-flowering:  
Soft pastel tints and almost savage hues.

The Desert! Painted with a lavish hand  
From palette whose rare colors make  
The grateful heart of sky and land  
Rejoice for Beauty's sake.

### MY PRAIRIE GARDEN

BY GLADYS I. HAMILTON  
Mancos, Colorado

God made the garden just outside  
My western cottage door:  
He planted all the nodding blooms  
That dot the desert floor.

Small yellow Johnny-jump-ups grow  
Beside the spiked bluebell;  
And Indian-paint and fair flax flowers  
Midst the flaming cacti dwell.

The rocks and I, and wind-swept grass  
Are deep-set in the sod.  
A place of peace, my home, within  
A garden made by God.

### THIS APRIL DAY

BY IDA CROCKER DUNCAN  
Denver, Colorado

This April day haloed in desert light  
Is fashioned out of warm sweet loveliness  
As lovely as the thrill of flowers in sight,  
As mystic as the piled-up clouds that bless,  
No labored words may paint your sweet  
awakening,

The wave of wonder in my singing heart;  
No song bird, or world of blossoms breaking;  
Can tell the joy, to be of you a part.

### DESERT

BY LELA M. WILLHITE  
Montebello, California

They say that you're harsh  
Toward those whom you charm;  
But God in His Heaven  
Must know that no harm  
You'd do—only the weak,  
Who leave reason behind,  
Will find your vast reaches  
Harsh, grim or unkind.

### WISE SILENCES

BY GEORGE BUZZA  
Hollywood, California

As barren as a skull's white smile  
As hard as bidden Hell  
The desert burns the living soul  
Of those who dare its spell  
But men who cross its flaying rack  
Through dawns and dusks delight  
In solace of the desert's deep  
Wise silences, at night.

### CREED OF THE DESERT

BY JUNE LE MERT PAXTON  
Yucca Valley, California

Now Mother Nature, in a whimsical way.  
Thought of a joke she'd like to play.  
So, late in the fall she sent some showers,  
Then dressed the desert, again, in flowers.



*Sand Verbenas on Yuba Plain.*

### DESERT LOVE

(An Arab's Swan Song)  
By GASPAR BELA DARUVARY  
Idyllwild, California

Dost thou hear them O my brother? Dost thou  
hear them? Speak to me!

The camel-bells that come from realms of sun-  
set to the sea!

Thro' the pass of El-Cantara o'er the burning  
brown Sahara;

Dost thou hear them O my brother? Dost thou  
hear them? Speak to me!

Dost thou see them O my brother? Dost thou  
see them? Speak to me!

The trailing caravan that's led by Mohoud-ben-  
Ali!

The palfreys that are prancing, and the Ouled-  
Girls dancing!

Dost thou see them O my brother? Dost thou  
see them? Speak to me!

Ah thou seest not, nor hearest? O my brother  
speak to me!

Say it is not idle fancy—what I hear and dimly  
see!

For I feel her sweet lips burning, and her eyes  
with passion yearning

For her lord and lover dying! O my brother  
speak to me!

I am passing O my brother! O my brother speak  
to me!

In my soul there is a rushing like the breakers  
on the sea!

Ah the sands around are glowing; to the Great  
Unknown I'm going—

To the Garden of Paradise! O my brother speak  
to me!

### SIMILE

BY KATE CRICHTON GREDBLER  
Mount Kisco, New York

Today, on San Jacinto's lofty stone  
I saw the golden yarrow bloom alone.  
Amid scrub-pine and dusty chaparral  
Its gay, new-minted petals bravely shone.

I knelt and cupped a spray within my hand,  
Noting how carefully the Maker planned  
Each silver-dusted stem and bright green leaf  
To show against the monotone of sand.

I left it there as comfort to the wise  
Who, passing too, may see it and surmise  
How God, from seed that falls on stony ground  
His desert places decks and glorifies.



*Paul Wilhelm built his guest house by cutting fallen palm logs in 10-foot lengths, standing them on end in a trench, and then chinking the cracks.*

In the heart of the drab mudhills that form the northern rim of Coachella valley in Southern California is Thousand Palms oasis. Paul Wilhelm came here eight years ago to establish a little retreat where he could write and paint. He literally lived off the country during the first few months—but eventually the fees collected from campers enabled him to provide simple accommodations and today the oasis is a popular retreat for those hardy enough to follow the rough winding trail that leads into this region.

## *Vagabond House at 1000 Palms Oasis*

By PAUL WILHELM

**I** LIVE in the heart of Thousand Palms oasis on the north border of the Colorado desert of California. The oasis is rimmed with hills, the hills surrounded with desert. There is but one road. It is sandy and dry. But it leads to majestic green trees—and a spring of cool water. In this desert retreat, shut off from the world, where the wind whispers in the palms and the moon reflects the glory of the white dunes, I have found a great peace and immeasurable freedom. I have resided here eight years.

I am not the first to find the solitude that broods over this oasis. Beneath the palms, under mesquite thickets and in sand

dunes up the canyon I have unearthed jasper spear heads and finely-wrought ollas, specimens of rare beauty left by ancient tribesmen.

Thirty-five years ago my father — a California pioneer — traded two mules and a buckboard for 80 acres in Thousand Palms canyon. He found this spot while searching for spring pasture for horses and mules from his ranch in Hemet valley. After hours of travel in a buckboard over the arid plain and through barren hills the sight of this oasis must have brought joy to the eyes of him who came from Bavaria and loved green-growing things. Here the needs of his stock would be taken





*Thousand Palms oasis. Little San Bernardino mountains are in the background.*

care of and he would find rest. He resolved that the oasis would be his own. Shortly afterward he made the trade that is history in Riverside county.

When wet years returned to Hemet valley two winters later, the stock was herded back and the oasis was left to its former state of quiet. Prospectors came this way occasionally. And once in a while a camping party ventured into this remote canyon. But most of the time the wildlife of the desert came here for winter unmolested by human beings.

I spent many holidays in this oasis with my father. There was a fascination about this oasis, and the great expanse of desert that surrounded it. I did not attempt to analyze it then—but in 1933 when I had said my last farewells to associates at Georgetown university I knew this was to be my future home. Here I would have the time and opportunity to do two things I wanted most to do—write and paint. Within the desert's sandy borders one could shut out the noise of cities grinding out "civilization." Here a man's thoughts and his life could be dominant in the sweeping privacy of the wasteland. Here, away from the pressure of mechanized societies and social upheavals, could be found the values which the individual wished to preserve—and fight for, if need be.

So I came to the desert that autumn with two dollars in my pocket. I trudged up the sandy wash followed by a dog and two burros. In the packsacks were supplies to last three months, a typewriter and 500 sheets of paper, seeds for a vegetable garden and my watercolor paint boxes. How eagerly I looked

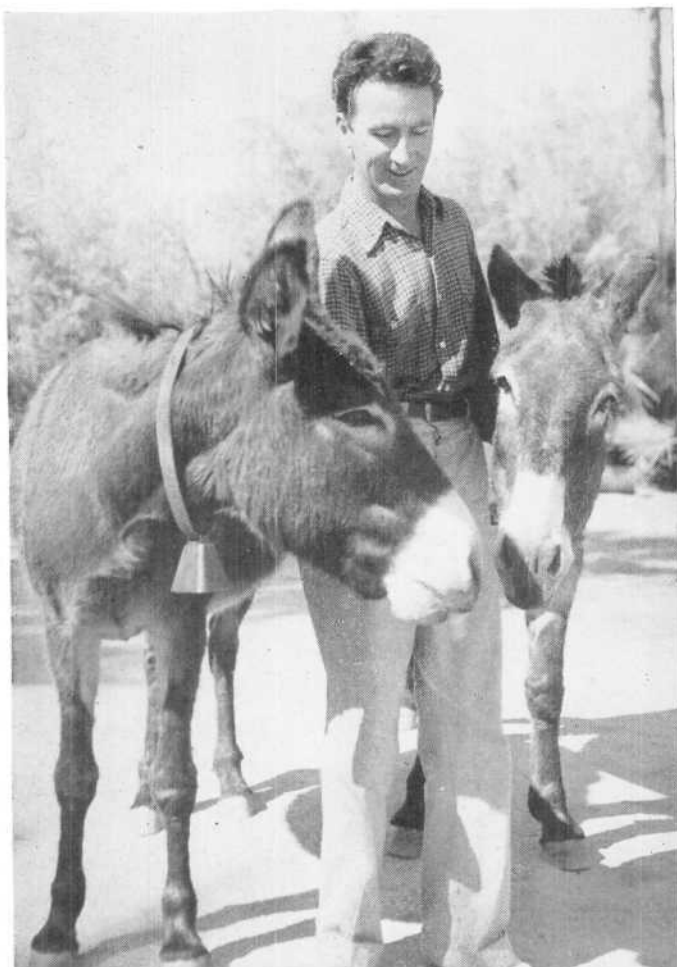
ahead for a first glimpse of this cluster of palms against the north horizon.

For eight months I lived in a dug-out on the sunny side of a bank beneath the palms. Small game was plentiful in the canyon. I fashioned a clean-limbered bow out of mesquite. A vegetable garden flourished in the loamy soil, my snares kept the table supplied with wild meat. When campers came up the road that I built, I charged them a small fee and with the money built fireplaces and rustic furniture for campsites. I used every minute of my freedom.

When the hot June days came my garden was barely supplying the table with vegetables. On a dark night my dog was killed and eaten by coyotes. I eyed the traps where they hung on a peg, but the coyotes were here first. Another lesson in acceptance.

One day in July I followed the trail down to the springs, bathed in the warm water, and stretched out on the sandy bank. All was so quiet I almost heard the bees having their sip of water in the moist sand. I fell asleep, then awoke with a start and looking up saw three middle-aged Indians on fine looking ponies grinning down on me from a rise not ten paces off. They tied their horses to a cottonwood and joined me at the pool.

Steve Kitchin, a Carlyle Indian school graduate, was the spokesman for the trio. He was dusky, slow-speaking and massive, but his brown eyes were gentle and his voice deep and rich. He said his people make annual pilgrimages to the oasis



*Above—Paul Wilhelm and the burros that "went over the hill" when he brought an old truck into camp.  
Below—Wilhelm with Willie Soza (right), young Soboba Indian boy who taught him how they live on the native shrubs of the desert.*

from Mission canyon, an Indian reserve 20 miles away. "We call these springs 'the water that cures,'" he explained, "and the peace of this oasis the 'spiritual fragrance' left by the Early People, our ancestors, an old, sacred tribe." Steve told a legend of a war between nomadic desert clans and the Early People over the rich harvests of the oasis. In that battle a thousand braves were killed. Where they fell, a thousand palms sprang up—ghosts of the sacred tribe.

After the Indians had joined me in a rabbit stew, they rode north toward the San Bernardino mountains in the cool evening. Then the moon came up. I stood in a white circle of light under the largest cluster of palms and resolved to build a refuge for people from the great cities who, like myself, desired to be at peace with the world.

But it was not as easy as that. For the rest of that summer I existed on chia seed, using the flail and basket as Steve had shown me; and often, when a whole day was spent gathering a cupful of seed, I would chew the inner bark of mesquite trees to satisfy my hunger.

But when autumn came it brought increasing numbers of campers. They had heard about my oasis from previous visitors. Before the winter was over I had saved \$200. I paid \$5.00 for a discarded truck, patched it up, and spent the rest of my savings for lumber which I hauled up the sandy wash for my first cabin.

When the burros beheld the strange contraption panting and steaming into the oasis they fled to the hills. For a month I caught only an occasional glimpse of them on the far horizon.

The second summer I built a log house out of palms that had fallen in fires long ago. The logs were cut in 10 foot lengths, placed upright in a two-foot trench and chinked with clay. Palm fronds were used for the roof. I called it Vagabond House.

Willie Soza visited the oasis in mid-July. He was a nephew of Steve Kitchin. His fine features and dark, quick-roving eyes well befitted a Soboba, and despite the sudden laughs and lively disposition, a calculating mind worked in his well-shaped head.

"Game is pretty cautious," Willie remarked one day when we had returned to camp empty handed. "I'll teach you how to live," he said, and from then on we ate baked agave, yucca and succulent plants; fried tubers and wild onion.

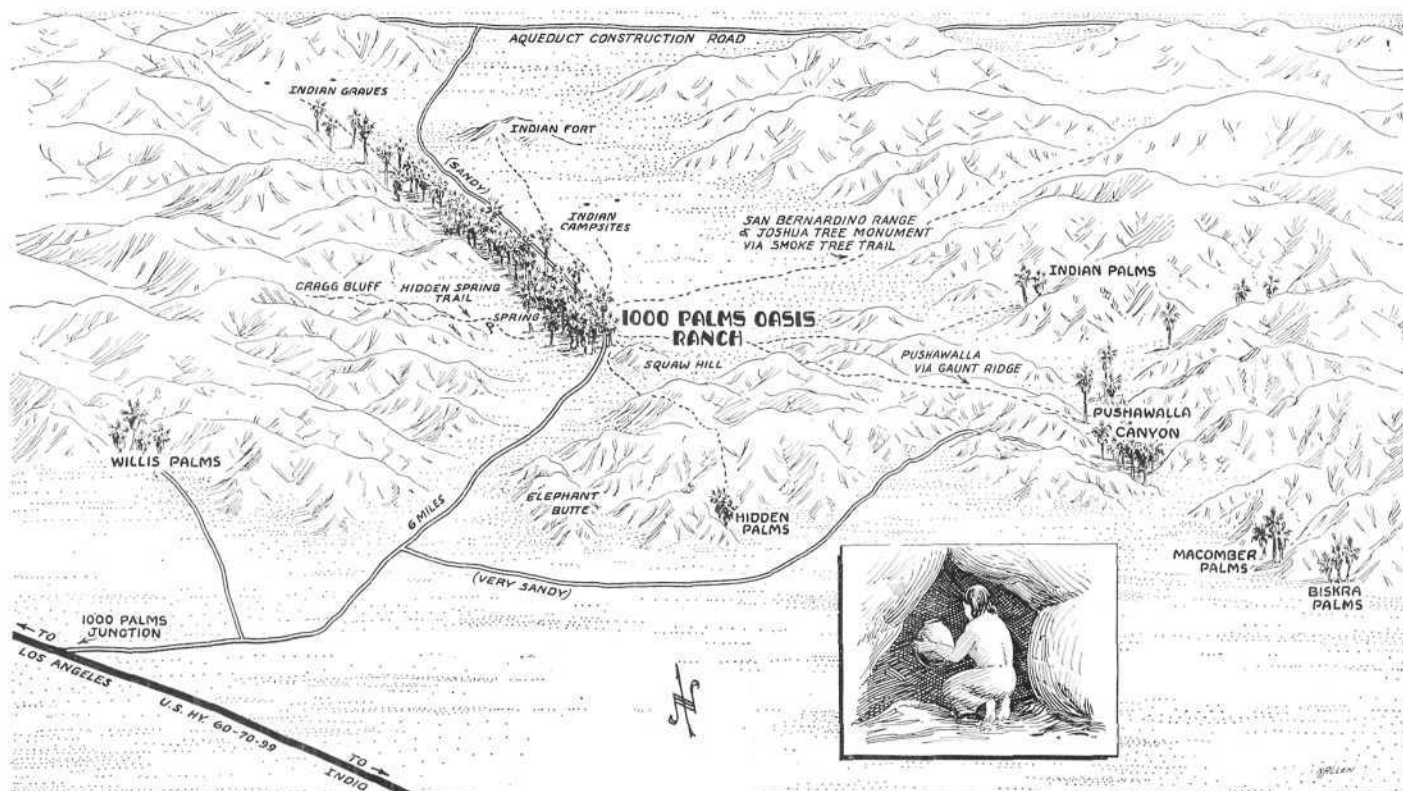
We made a flail and basket out of fronds and hunted the canyon for chia and wild wheat. The seeds from these plants were ground fine between smooth rocks that we found in old Indian encampments. The flour was added to mesquite seed flour and mixed into a dough. Willie fried them thin. We located two bee caves, robbed them, and spread wild honey over hotcakes and agave. The diet was nutritious. We both gained weight.

In November I completed two little desert cottages. They were furnished simply, and with the windmill and storage tanks set up, water flowed into the three buildings among the palms.

My luck held—by word of mouth the oasis was advertised, and at the end of that winter two more cottages were built. Watercolors sold to guests for one dollar each, and short stories and desert articles brought in a small return. I hauled palm logs into the yard and made a five room home out of Vagabond House. It was complete with modern plumbing and a rustic den. I began a nursery of young palms, cottonwood and tamarisk in a wash near the springs.

In mid-August I packed the burros and hiked 300 miles into central Arizona. I lived with the Tonto-Apaches below Thirteen Mile Rock in the timbered paradise of Fossil canyon. Springs burst from a luxuriant shelf of ferns and fell in splendor to the river far below. The river was clear for fine swimming. I slept behind the waterfall where watercress grew in quiet currents. Two deer came down each dawn and ate the tender leaves. I discovered cliff villages that no other white man had ever seen. In the larger caves, I often took my food, sleeping bag





and watercolors to the ledge overlooking deep, vermillion canyons. From those starry heights I came to know a gentleness from the lives of those vanished cliff people. The only sound was the chirp of cliff swallows. They awoke the drowsy echoes of the hidden canyons. When autumn trembled on the air, I headed the burros west.

That winter passed swiftly. Two more cottages were set up. I acquired a cow and delighted my guests with pitchers of real cream for their morning coffee. In the model-T my upright piano was brought up the sage flats. I rolled it into Trail's End, the largest room in Vagabond House where I served an occasional meal amid trappings of leather, palm log stools covered with cow skins and Navajo rugs on the cement floor. We gathered around the ancient piano each evening for a song-fest.

Wandering with visitors and guests in the aisles formed by the palms I explained to them that the native California desert palms were the hardy survivors of a great forest that once lined the shores of an ancient sea.

The economic value of the palms cannot well be overestimated. They furnish fiber, timber, sugar, starch, oils, fats, resins and wine, while the date palm supplies food to nearly the whole of Africa north of the equator, and to millions in Arabia.

The palm native to the Colorado desert of California is the *Washingtonia filifera* and *robusta*, the two varieties growing together in oases on the west, north and east borders of the Colorado desert. They are trees with fan-shaped much folded blades and long petioles armed with stout hooked spines along the margins. Named after President Washington, these two types of California fan palms differ in only slight degrees. The *filifera* usually is not more than 30 feet tall, the column much thicker than the *robusta*. The *robusta* palm is graceful, slender, oftentimes attaining a height of 60 feet. The fruit is a berry, black, about the size of a coffee bean.

The origin of these palms is not known. No botanist will venture to name an exact age for them, though it is considered possible that their genus is older than the family of Giant Red-

woods. The oldest palms growing in Thousand Palms oasis are perhaps from 300 to 500 years.

Before the advent of the reptilian era a great sea covered the region now occupied by the Colorado desert. The palms were there then, bordering that mammoth sea, and in its limestone bottom I have found periwinkles, oysters, seeds and fibers of the palms preserved as fossils.

Actually, the oases of the Coachella valley are remnants of a great forest of palms. The oases exist today only because of the San Andreas fault line. Water is forced up through the fissures formed by the fault, rests on hardpan and is held back by a rimrock composed of silica and magnesium. Where palms grow, water is sure to be, cool and pure.

Our knowledge of the palm's existence dates back 250 years ago when Father Garces left Mexico and wandered for three years through California and Arizona. He left his Journals, which mention the luxuriant palm oases in side canyons of a great sandy valley. In 1846 when Major W. H. Emory accompanied General Kearny to the conquest of Southern California, we find mention of the palms, or "Cabbage Trees" in his diary.

The Indian made good use of the palms. He called them "Mauwal" and the oasis "Mara." He used the fronds for houses, the seed for food and the fibers for clothing and mocasins.

The days had flown. Summer came. I spent one month adding three rooms to Vagabond House. Navajo rugs are on floors, an Electrolux was installed in the old-fashioned kitchen, and big windows lighting my studio and library. Homemade furniture was placed in the lounge where people from every walk of life find refuge from the hurly-burly of a world that is moving too fast for the good of men's souls—and their nervous systems.

The road to Thousand Palms oasis remains rough and winding. I would not have it otherwise. For this is not a retreat for those who must be pampered. Survival on the desert demands toughness of fiber—both physical and spiritual. At Thousand Palms I would like to preserve always the peace and the hardihood of the desert as Nature created it.



This is the Desert Magazine's annual wildflower forecast, compiled as of March 1 when only the earliest of the desert species are actually in blossom. For those who will want to follow the desert highways to the areas where flowers are most profuse, another wildflower report will be published in the May number of Desert Magazine. This issue will be off the press about April 15 when the flowers generally will be near their peak.

## Wildflowers on Parade

**T**HE rain gods have been generous to the arid lands this season and from every dune and mesa and slope in the great wide desert region millions of tiny green sprouts have been pushing their way up through sand and rocks since early February—giving promise of one of the most colorful wildflower displays in many years.

Generally speaking, the season is about two weeks ahead of normal. This means that the earlier shrubs on the desert lowlands will be in full blossom by the last week in March, and that before the end of April the higher mesas will have reached the peak of their flowering season.

Thanks to the cooperation of botanists and other Nature students, the Desert Magazine has been able to compile forecasts from widely scattered areas in the southwest, and these are presented as follows:

### ARIZONA

"Take our flower report of a year ago, and move it about two weeks ahead" is the suggestion that comes from Natt Dodge of the U. S. park service at Casa Grande ruins national monument. "The poppies already are at their height here, and some of the other early spring flowers are beginning to blossom." Verbena, primrose, mallow, aster, coreopsis, dandelion, lupine and the many other species will be found in their usual haunts along the roadsides, in the dunes, and on the mesas, before the end of March. Barring too much hot wind they will continue well into April.

According to Professor J. J. Thornbur, botanist at the University of Arizona, no road or trail in Arizona will be without its

wildflowers during April. In the southern part of the state many of the species were out in full color early in March.

The flowering perennials such as ocotillo, cacti, palo verde which normally blossom in April and May, will be out somewhat earlier this season.

Poppies and purple verbenas will soon be out in all their color reports Louis R. Caywood, custodian at the Tumacacori national monument. "This year every plant that blooms in this region should have a profusion of flowers."

Custodian Frank L. Fish at Chiricahua national monument wrote on February 25: "I have just returned from a trip to Casa Grande national monument and find the desert around that region a riot of color, with poppy predominating. This area has received an abundance of moisture, but one can hardly expect any better flower display than the excellent one last year, unless we enlarge the topography of the region, and we will probably have to wait a few million years for that."

"The Sulphur springs valley should have its usual mass of poppies, penstemons, mustards, Mariposa lilies, mallows, verbenas and lupines this year, and the San Simon valley has started flowering now in its warmer sections. Manzanitas are in full bloom in the monument, choke cherries are leafing, verbenas are about to bloom and the pink penstemon should be the outstanding mass display of flowers by April."

Mrs. Jetty Starkweather of the Desert Garden club at Tucson reports that the roads from Tucson will put on their best show in April. Poppies and penstemon will set flame to the hillsides of Box canyon, south of the city on Highway 89. A short distance west, in the Tucson mountain range, enormous fields of Mariposa lilies will be found—this is a beautiful reddish orange variety, with blue center.

Driving northwest on highway 84 are these outstanding areas: the Rillito foothills with masses of golden palo verdes, and the Picacho district which is a maze of poppies, verbenas, orange penstemon and blue lily (coveana). A turn-off on the Silver Bell road leads to another remarkable palo verde area.

Palo verdes will also be seen in great numbers on U. S. Highway 80, leading north to Florence, as well as the turn-off road to Oracle, Mammoth and Winkelman.

From Yuma, Secretary Evelyn Smith of the chamber of commerce reports that the roadsides leading into Yuma are lined with verbenas, primrose, lily and lupine, budding out and ready to burst forth in blossom by the middle of March.





William R. Supernaugh of Organ Pipe cactus national monument verifies other reports from southern Arizona—that verbenas and poppies already are coming into blossom, and that the ocotillo, palo verde and cacti should be exceptionally colorful in April.

### COLORADO DESERT

Through the Coachella valley and down into Imperial valley, the first verbenas blossoms were in evidence early in March, and and before the end of the month should be out in full color. Lilies are unusually plentiful this season and in the area south of Coyote wells on Highway 80 hundreds of them were in blossom the first week in March.

Evening primrose began blossoming along Highway 80 between El Centro and Yuma March 1, and should be in full bloom all over the Colorado desert by the third week in March. Some of the mallows, especially the salmon species, are among the early flowers in this area and will continue blooming through March and April.

Purple lupine is especially conspicuous along Highway 60 between Indio and Desert Center, and thence north along the Aqueduct road to Parker. These should reach their peak about April 1. Geranium is one of the most conspicuous roadside flowers in this area, and will follow along with the lupine. Desert senna has been in blossom throughout the winter.

After the middle of March the visitor may be assured of flowers along any roadside in the Southern California desert, with exceptionally colorful displays in Coachella valley, Borrego valley, the Coyote wells area, Chuckawalla valley and the mesa east of Imperial valley.

Borrego, which is among the outstanding wildflower areas of the Southwest will be literally carpeted with blossom by the end of March, with verbenas, primrose and lily predominating on the floor of the valley and mallow, penstemon, phacelia, encelia and scores of others on the bajadas and in the canyons.

Ocotillo which grows so profusely along the desert side of the coastal range is already showing a few scarlet plumes, and will be out in full array early in April.

Cabot Yerxa, whose little desert trading post is located in the heart of the Coachella dunes suggests that the winding roads which lead north from Highway 60-70-99 will take the motorist into many wildflower gardens.

Bob Dunagan at Blythe reported that desert lily was blossoming in that area March 1, and that March will find verbenas, heliotrope, primrose, encelia, lupine and chicory along the highways in abundance.

### TWENTYNINE PALMS

Owing to the 2000-4000 foot elevation here and in Joshua Tree national monument the peak of the flowering season will

not be reached until early April, but this is a colorful area when dandelion, lupine, aster, daisy, sunflower, verbenas, primrose and phacelia are in their prime. The cacti in the monument should be especially beautiful during April. Joshua trees began blossoming in February and will continue through March.

### MOJAVE DESERT

From F. A. Wolz, secretary of the chamber of commerce at Palmdale, comes the report that flowers will be out earlier than usual, and more abundant than normal. Joshua trees were in bloom March 3 and will continue through March. A few lupine and poppies were blossoming early in March, and by the end of the month the fields should be a mass of color. Among the flowers to be seen there in April will be poppies, Mariposa lily, monkey flower, thistle sage, desert candles, fiddleneck, baby blue eyes, popcorn flower, suncup, Indian paint brush and owl's clover.

Dorothy Clayton at Needles reports that by the end of March the roadsides along Highway 66 will be lined with coreopsis, lily, lupine, verbenas and many of the perennials.

In the Barstow-Daggett-Yermo area Mary Beal reported on March 5 that rabbit thorn—always the herald of spring—was heavy with bloom. Woolly breeches has shown a few yellow flowers and forget-me-not was opening its eyes. The peak of the flowering season here and north into the Providence mountains will not arrive until early in April. The blossoming season in this area is nearly a month later than in the Colorado desert near the border.

Cacti and primrose have a favorite hide-out around the dunes of the Devil's playground. In the Cronese and Baker areas early in April will be sand verbenas, lily, suncup, sunflower and chicory — plus scores of other species.

### DEATH VALLEY

April visitors to Death Valley will find the flowers at their best. Great fields of geraniums are to be seen on the floor of the valley and on the rocky bajadas, and in the dunes will be verbenas, primrose and those other species which prefer to have their roots in the sand.

In the canyons and on the slopes around the valley will be the scores of species which lend color to the desert landscape—encelia, aster, daisy, sunflower and many species of cacti.

### NEW MEXICO

W. B. McDougall of the federal wildlife service in New Mexico reports that the blossoming season will be at its height in the White Sands national monument area in April and May, some of the conspicuous flowers in that region being rabbit thorn, phacelia, yucca, verbenas, wild heliotrope and many of the cactus family.

Fred W. Emerson of the New Mexico normal university at Las Vegas, states that at the 6500 elevation only a few of the flowers will blossom in April but if the visitor will venture off the main highway and into the rocky places he will find sand lily, Pasque flower, Corydalis, Puccoon and Easter daisy.

## The Desert TRADING POST

*Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—actually about 2½ cents per thousand readers.*

### COTTAGE FOR RENT

ON EDGE OF MOHAVE, elevation 3300 feet, clear dry air extremely healthful, furnished with oil furnace, gas, mountain spring water. Address 521 Main St., Alhambra, California.

### PHOTO FINISHING

14c DEVELOPS and prints 8 exposure roll! Or 16 prints, 24c; or 8 exposures enlarged to 4x6, 24c! Guaranteed quality. Send rolls or write for FREE Mailers. Rancho Photo, Dept. 111, Ontario, California.

### MISCELLANEOUS

INDIAN RELICS. Beadwork. Coins. Minerals. Books. Dolls. Old Glass. Old West photos. Miniatures. Weapons. Catalogue 5c. Vernon Lemley, Osborne, Kansas.

BEAUTIFUL SOUVENIRS of the desert, made of cactus wood by sick veterans. Calendars 25c—paper knives 25c—Old rugged cross (8 in. high) 50c—Lamps from \$1.50 to \$5.00. Postpaid. Camp Major-Jo, Vicksburg, Arizona.

### LIVESTOCK

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

### MAPS

BLACKBURN MAPS of Southern California desert region. San Bernardino county 28x42 inches \$1.00; San Diego county 24x28 inches 50c; Riverside county 50c; Imperial county 19x24 inches 50c; Yuma and Gila river valley 17x27 inches 50c. Postpaid. Add 3% sales tax in Calif. DESERT CRAFTS SHOP, 636 State St., El Centro, California.

### REAL ESTATE

240 ACRES clear patented desert land, will be under gravity water from Coachella-All-American canal. Level. Ideal guest ranch site. Northeast of Holtville, Calif. Only \$20 per acre. Robert Hays, El Centro, California.

SALE OR LEASE: Beautiful desert house of stone; on 320 acres in sight of San Bernardino Mts. Ideal hide-out. Sacrifice. Phone number 8565, Lancaster, California.

W. E. HANCOCK

"The Farm Land Man"

EL CENTRO — — — CALIFORNIA

# Mines and Mining . .

World silver production in 1940 broke all records, with prices in the world market virtually unchanged. Less of the white metal was bought during the year by the United States than during any 12-month since the silver buying program was set up seven years ago. World output was 278,000,000 ounces, compared with 264,200,000 ounces in 1939 and the previous peak of 274,700,000 ounces in 1937. Mexican mines led during the past year with 84,500,000 ounces; United States reports 66,000,000 ounces; Canada 25,000,000; South America 32,500,000 and all other countries 70,000,00 ounces. The figures are taken from 25th annual review of the silver market by Handy and Harman, bullion brokers, long accepted as authoritative by the trade. It is estimated that 41,000,000 ounces of silver were used in the arts and industries of the United States and Canada in 1940, an increase of 20 percent over 1939. National defense items show the biggest gains in use of silver.

## Winnemucca, Nevada . . .

Guests of state senator Noble H. Getchell at the Getchell mine watched two bars of \$100,000 in gold poured at the mine. To Joseph O'Reilly of Winnemucca, senator Getchell said: "I'll give you one of these gold bars if you can lift it to your shoulder." The bar was worth \$49,500. O'Reilly really tried. Honest sweat stood on his forehead, but straining and grunting, he managed to raise the yellow slug only two inches.

## Milford, Utah . . .

Sometime in March the new tungsten mill of the Prosper mining company, about five miles north of here in western Beaver county, is expected to be ready for operation. It is planned to treat scheelite from the Old Hickory mine. It is reported that a Nevada company has leased a large section of Old Hickory and will ship a car of ore daily to its Nevada mill.

## Hawthorne, Nevada . . .

A four-foot vein east of the old Hubbard workings in the Lucky Boy mine south of here, that runs \$120 a ton in silver and \$28 in gold is reported by the operators. The ledge, found on a drift from the 950-foot level, was uncovered by following a stringer and shows an increase in width as development progresses, says the California Mining Journal. The Lucky Boy has produced more than \$5,000,000. The mill has a capacity of 250 tons daily.

## Carson City, Nevada . . .

Reporting a sharp increase in the number of prospectors roaming Nevada's mountains, Wayne McLeod, state surveyor general announces free distribution of a pamphlet giving detailed information on how to locate and maintain mining claims. It is far better, McLeod says, to take proper steps in locating and recording a claim, than to leave through carelessness loopholes for attack on title to

property which might prove to be a bonanza. Subjects explained in the booklet include lands subject to mining location, federal and state laws, approved forms for locating both placer and lode claims.

## Tucson, Arizona . . .

Completing a western trip for inspection of strategic minerals projects, Charles F. Jackson, chief of the mining division of the U. S. bureau of mines, announces satisfaction with progress made. "If we should approach a critical shortage of strategic metals, the government will find some way to stimulate an increased production of domestic deposits," Jackson said. His companions on the inspection tour were E. D. Gardner, supervising engineer for the bureau, and Samuel G. Lasky, of the U. S. geological survey.

## Phoenix, Arizona . . .

Arizona miners were paid more than \$25,000,000 in wages during 1940, according to J. S. Coupal, director of the state department of mineral resources. Nearly one third of the Arizona metal output value goes to mine workers, half of this \$81,000,000 annually is spent in the state, Coupal says a survey proves, asserting that every person and every community in Arizona benefits in the distribution. Mines spent \$16,500,000 for supplies and equipment; taxes took more than \$11,000,000, railroads got nearly \$8,500,000 for hauling ores and products, miscellaneous expenses accounted for \$5,500,000, refining and marketing, mostly in the east, cost \$6,000,000. The balance, about \$9,000,000, went to the investor, who made all other expenditures possible, comments Coupal.

## Mojave, California . . .

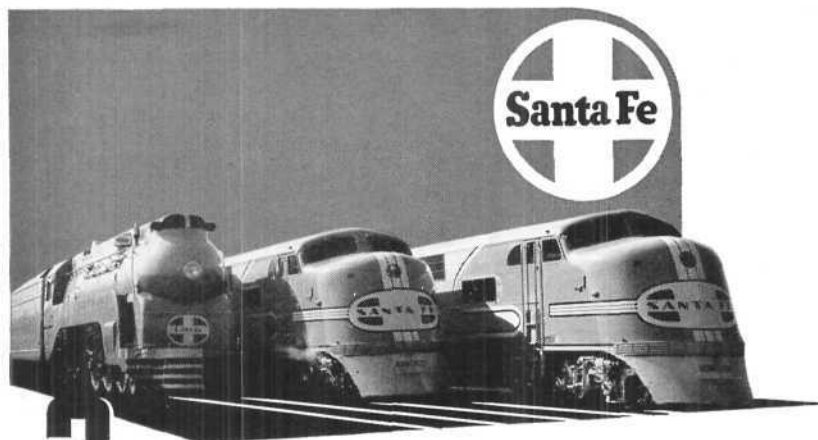
Burton Brothers, operating a custom mill at Tropico near here, control the Lida mine. Recently they leased the old Hamilton mill-pond at the Lida to a couple of boys who thought they might put in a reduction plant to try out the waste accumulated there from a stamp mill operated many years ago. But when they studied the "waste" they decided to ship to the Burton mill and run it through there. It was worth up to \$40 a ton. Now the Burton brothers think they'd better reopen the old Lida, long ago abandoned as worked out.

## Globe, Arizona . . .

Last chapter has been written in the history of the Old Dominion, during its lifetime producer of close to \$140,000,000 in copper, gold and silver, and distributor of more than \$14,500,000 in dividends. Stockholders have voted to dissolve the company. The mine itself was sold about a year ago to Miami copper company. Since 1931 the Old Dominion's only activity has been the sale of water to the city of Globe. It was in 1873 that the Globe claim—for which the city was named—was located and this was the beginning of the famous property. First copper was mined, according to accepted accounts, in 1878. First smelter was erected at Bloody Tanks—now Miami in 1881.

## Hot Springs, New Mexico . . .

Within the limits of this health resort town, a manganese deposit estimated to aggregate 250,000 tons of ore is under investigation by government engineers. Senator Dennis Chavez of New Mexico, protesting purchase of Brazilian manganese, advocates buying domestic ore and storage in central New Mexico, with loans to producers for equipment. Deposits of the mineral have been developed in the southwestern part of the state at an increased rate with expansion of the national defense program.



## 3 STREAMLINED TRAINS

. . . EACH ONE ALONE IN ITS FIELD

★ **Super CHIEF** . . . the only all-Standard Sleeping Car streamlined train operating on a 39¼ hour schedule between Los Angeles and Chicago.

★ **The CHIEF** . . . The only all-Pullman daily streamliner between Los Angeles and Chicago, and the fastest daily train between these two points.

★ **El CAPITAN** . . . This silver streak is the only deluxe all-chair car streamlined train between Los Angeles and Chicago in just 39¼ hours.

★ **FOR COMPLETE INFORMATION—SANTA FE TICKET OFFICES**  
743 S. Hill St., 100 W. 6th St., and Union Station, Mutual 0111, Los Angeles  
235 Geary Street and 44 Fourth Street, phone SUtter 7600, San Francisco  
5th Avenue and B Street and Santa Fe Station, Franklin 2101, San Diego



# LETTERS

## On Place Names . . .

San Diego, California

Dear Mr. Henderson:

I have always maintained a promise to myself that I would never join the rank and file of critical letter writers who pester editors, but here I am. My excuse for slipping is to put in a plea for a man who cannot speak for himself.

In the recent March issue you devoted several paragraphs in your personal columns entitled, "Just Between You and Me," to the subject of place names and how they might be bettered.

In 1853 the geologist, William P. Blake, who was attached to the federal survey for a railroad route to the Pacific coast recognized the evidence of the former presence of a great inland sea of fresh water in the center of the Colorado desert and correctly interpreted its meaning. Being evidently too modest to give this extinct body of water his own name he merely described its features and it was not until sometime later that his colleagues gave it the name of "Blake Sea" in honor of the discoverer.

If I remember correctly Dr. D. T. MacDougal in the publication, "The Salton Sea" was the first to alter the name to Lake Cahuilla. I do not consider this to have been proper either from an ethical or logical standpoint. The discoverer should not lose the distinction nor should the Yuman tribes who lived completely around the shoreline of the Blake Sea be supplanted with the name of another tribe.

All archaeological evidence indicates that Yuman groups of Indians occupied all the territory from the Pacific coast to the Colorado river for hundreds of years before the Shoshonean speaking tribes, the latest Indian stock to come into Southern California, appeared.

The Cahuillas, a branch of this stock came down through Banning pass into Coachella valley just before the extinction of the Blake sea after it had shrunk to half its former size. Furthermore, in later times even after the greatest expansion of the Cahuillas, their territory did not come farther south into the Colorado desert than an east west line drawn from the southern end of the Santa Rosa mountains across to Frink springs at the base of the Chocolate mountains. All of the Colorado desert south of this line continued to be held by Yuman tribes until historic times. Thus you can see that it would be highly inappropriate to rename the Colorado desert the Cahuilla desert.

May I suggest one change in spelling when you are editing copy that would be proper. That would be Mohave for Mojave. Both the Mohave and English languages have an H-sound, so there is no need to use a Spanish spelling. All technical writers and government departments such as the U. S. Geological survey use the correct spelling and if you wish to go back into early usage you will find that some of the first American explorers, who certainly were not linguists and hair-splitters, using H in their spellings of the word.

MALCOLM J. ROGERS.

Friend Malcolm—I might go along with you on Blake Sea, but let's keep Navajo, La Jolla, El Cajon, etc., with the "j." Seems like it would take a lot of the romance out of those names to give them a phonetic spelling. — R. H.

## Purple Glass . . .

Winslow, Arizona

Dear Mr. Henderson:

I have a query which I have been unable to solve, and I thought maybe some of the Desert readers might have a solution; namely: Why does not glass in windows turn purple? Some have told me that it was because it was not laying on the ground and getting the direct rays of the sun, but I have proof that that is erroneous. For instance, a glass door knob has turned a light purple in the last three years. It has been on a south door and back of a screen door. I also have some small bottles in a south window that have turned a delicate purple, or rather an orchid color, and it seems that clear glass is not the only thing that takes on this color, as I have found opalescent jars (such as cold creams come in), and fragments of same, which have turned.

Just received the March issue of Desert Magazine and the article about San Diego Rawson is very interesting, as I know him personally. If Oren Arnold didn't hear San Diego recite his poem "My Pal" he has missed a great deal. It is an elegy to an old burro which an old prospector has been compelled to leave, and years later came upon the bleached bones of his "Old Pal." I have heard him recite this, standing in the middle of the room with his head thrown back in just such posture as that of the picture of him which was published in Desert some months ago. When he is finished, one has sort of a feeling as of coming out of a trance, such has been the rapt interest that San Diego has held his listeners.

I never look forward to the arrival of any reading matter as I do to your magazine, and I hope that it is never changed, and that the articles could be confined to these desert states alone.

EDITH L. HUBBARD.

You'll find the answers to your purple glass questions in Tracy Scott's article on Purple Glass in the Desert Magazine of September '39. — R. H.

## Introducing "Bottle Stoppers" . . .

Salt Lake City, Utah

Gentlemen:

The February number of your ever sunny Desert was particularly interesting to me because of the story on *Ferocactus johnsonii*. This species is not the little brother of the bisnaga, as Mr. Olin points out, but is a pocket edition of the beehive cactus, *Ferocactus lecontei*.

It may interest some of your readers to know that this species was first named *Echinocactus johnsonii* for my father, Joseph Ellis Johnson, who first settled in St. George, Utah in the early 60s. He was probably the earliest student of plant life in that section and material sent by him to Washington and elsewhere attracted the attention of scientists who later found their way to his home in southern Utah. These included Dr. Parry and Dr. Palmer, both of whom stayed as his guests for months at a time. He was in communication with Sereno Watson during the latter's Utah exploration, although I believe Watson did not get as far south as St. George in person. Several other plants were named for my father, including the lovely desert beauty, *Dalea johnsonii* (now *Parosela j.*), *Oenothera johnsonii* (now *Pachylophus j.*), also a *Notholena*, but possibly both names of this have been changed.

I enjoyed the story, *Eriogonum inflatum*, desert trumpet. We always called them "bottle stoppers." Many a time as a boy while herding on the dear but dry red hills of southern Utah, I have made a mess of bottle stoppers do me for a drink until a waterhole could be reached. Sometimes "squawberries" (*Rhus trilobata*) had to do the job, but b. s. were much more satisfactory provided they were picked at the tender stage.

I like all of DESERT, but my No. 1 vote goes to the botany section.

RUFUS D. JOHNSON.

## Shattered Hope



One time there was a man and he had an automobile. He went many places in it.

*He was driving gaily along one bright day gazing through his windshield into the immediate future.*

In due time evening came on. Shadows fell, and so did his spirits because his windshield became covered with stuff.

*At length it got so bad he could neither look where he was going nor go where he was looking.*

Visibility was zero—it was O with the rim stripped off.

*Suddenly the motorist seized an idea and a hammer and smashed the opaque windshield into bits.*

The mist and the haze and the stuff cleared away as if by magic. The man was very pleased.

*But alas, his joy was short lived for the air was full of weather. The rains kept on, and his hopes were shattereder than the glass.*

Soon he got all fogged up himself and was as bad off as ever.

*He came upon a brightly lighted Service Station and, driving in, told his plight to the Shell Dealer.*

The Dealer suggested a new windshield and advised the man to stop in at a Shell Dealer's every few blocks or miles and have the glass washed.

*There's no obligation, the Dealer said, adding that Shell Stations anyubere would be only too glad to do the job.*

And so the man went his way rejoicing, secure in the knowledge that the way to cope with a windshield is to keep it clean.

— By BUD LANDIS

# 29 PALMS INN

THE HOTEL AT THE  
PALMS

FIREPLACE ADOBES

FOOD TO REMEMBER

SADDLE HORSES  
BADMINTON

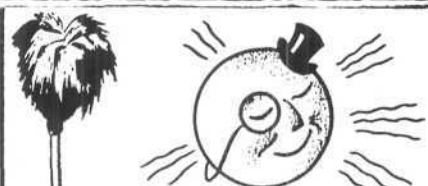
AMERICAN PLAN

Single \$5.00 —  
Double \$9.00 (and up)

Gateway to Joshua Tree National Monument

ROBERT VAN LAHR, Manager

Reservations—write 29 Palms Inn at 29  
Palms, Calif., or call any Travel Bureau or  
Automobile Club.



Fill Your Life With Sunshine

32nd Season Under Ownership and  
Management of Nellie N. Coffman,  
Earl Coffman and  
George Roberson.

THE  
DESERT  
INN

PALM SPRINGS  
CALIFORNIA

## HILTON'S Art and Gem Shop

JOHN W. HILTON, Owner

On U. S. Highway 99, Ten  
Miles South of Indio

ACROSS FROM VALERIE JEAN DATE  
SHOP. P. O. ADDRESS, THERMAL, CALIF.

STUDENTS AND HOBBYISTS  
ALIKE FIND THE

## DANA MAGAZINE

A Source of Accurate and Always  
Timely and Interesting Informa-  
tion on the Absorbing Sub-  
jects of . . .

- GEOLOGY
- GEMOLOGY
- MINERALOGY

Subscriptions are \$2.00 Yearly;  
Single Copies 20c

TELEPHONE TUCKER 6801

428 Metropolitan Bldg.  
LOS ANGELES, CALIF.

## Date Palms in Borrego . . .

La Mesa, California

Dear Mr. Henderson:

It was with much interest I read your article on Palm Canyon, Borrego, which brought to me many pleasant memories of the past. Many times have I gone through the same thrills.

Perhaps you do not know that another species of palms is growing in that canyon besides the Washingtonia. I will relate how it happened.

On March 6, 1933, in company with Paul Van Doren of the Bank of America and Esie Wynn former postmaster of Borrego, now deceased, we decided to make the canyon ascent. Having passed the first group of palms we met Fred Ashbridge, and his wife, of Wilmington, whom I coaxed to go farther. They demurred on account of having no lunch with them. To settle matters I produced a two pound package of store dates, offering them part with the understanding they would return every seed. Our objective reached I sharpened a stick and started planting down stream in spots along the bank that showed upward seepage.

On a return visit about two years ago I found many of my plants had grown although somewhat smaller than I expected. They averaged about two feet in height. I sincerely hope that the public will allow them to grow to maturity.

Wishing you a successful future, I am,

CHAS. F. W. RAPP.

. . .

## That Manly Route . . .

South Pasadena, California

Dear Mr. Henderson:

The late Dr. John Wolff, eminent geologist, who lost his life on the desert last summer, became interested in the Manly Party route while doing geologic reconnaissance work in the Panamints.

The results of Dr. Wolff's observations and deductions were published privately in a little booklet entitled, "Route of the Manly Party of 1849-50 in Leaving Death Valley for the Coast." This booklet is illustrated with a sketch and photographs showing the route which Dr. Wolff believed to be the one most probably used by Manly. It does not agree with the findings of Mr. T. R. Goodwin as described and illustrated in Dick Freeman's article "On Manly's Trail in the Panamints" in the March number of the Desert Magazine.

Dr. Wolff believed that the route traversed by Manly lay through Redlands canyon, Butte valley and Warm springs canyon. He photographed a fall and spring in Redlands canyon which are identical in their relation to each other as the ones pictured in South Park canyon in Desert's article.

In discussing his reasons for believing that he had found Manly's old trail, Dr. Wolff told me that the "peculiar yellow rocks" which Manly mentioned in his book, "Death Valley in '49" may still be seen at the fall in Redlands canyon.

I do not pretend to know anything about the merits of the conclusions arrived at by either Dr. Wolff or Mr. Goodwin, but it occurred to me that Mr. Goodwin might be interested in comparing his findings with those of Dr. Wolff if he has not already done so. It is quite a coincidence that there should be in each of these canyons a fall and spring, either of which could fit the description given by Manly. I do not know whether or not it is possible to obtain a copy of Dr. Wolff's booklet, but if Mr. Goodwin should be interested and cares to correspond with me I would be willing to try to obtain one for him.

Being a collector of minerals and a lover of the desert I greatly enjoy your magazine each month. With best wishes for continued success, I am,

ERNEST W. CHAPMAN.

## Origin of "Needles" . . .

Sirs:

Needles, California

In your question and answer column of the February issue you state that the Needles peaks were named after a Captain Needles of the U. S. army. However, this is not correct as I have contacted the best of authorities here and they uphold my claim.

The Needles peaks were named such because they are very sharp and have many holes which resemble needles' eyes.

Trusting you will accept this information and also my compliments on your publication especially for this part of the country.

D. H. TITTLE.

## Desert Magic . . .

Manchester on the Sound, Washington

Dear Mr. Henderson:

For 60 years I have heard of "Desert Magic." Aside from the magic of stars at night when flat down on the sand, the "purple sage," the coloring at morning, noonday, evening—the changing and ever beautiful flora as the seasons come and go—well you know one only feels things in the desert; they can't be expressed.

I really never have experienced *real* magic until a few months ago. A copy of the Desert Magazine came into my hand just as I was leaving our green, damp and lovely country for the usual winter in the southland. Each month since, it has arrived on time bringing me ever-increasing pleasure in picture, song and story of a land I can no longer tramp over, but must go to on wheels—the aged and the invalid's "afterthought" of God. I have no idea who sent in my subscription, so I can not tell them, personally, of my appreciation. Notify me when the subscription is due again, please. I could not let it lapse.

MRS. LORA HUGHES.

# Enjoy SAN DIEGO

Stay at the

## U.S. GRANT

San Diego's  
Leading Hotel

**RATES**

\$1.50 up near bath  
\$2.50 up with shower  
\$3.00 up with bath

*San Diego*  
CALIFORNIA  
Broadway on the  
famous Plaza

Drive-in Lobby-Level GARAGE



## Jumping Beans? . . .

Duckwater, Nevada

Dear Mr. Henderson:

Visiting my daughter in Eureka, Nevada, she showed me one of your Desert Magazines. I consider it one of the finest magazines I have ever read. What interested me most was your article about the fossil oyster beds on the west side of Imperial valley.

I worked on the survey of the S. D. & A. railroad in 1908 and 1909. It was then I saw these oyster beds. In fact we saw many things in that part of the desert to interest us. On the eastern slope of the range, west of El Centro, we found beautiful zircons. Some call them hyacinth. Of course they were mostly shattered, but some of them were beautiful. Then on the old beach one could pick up wonderfully polished shells. You have to go south of Coyote wells to find these.

What I want most to tell you about is the old Indian villages we passed through in running our survey lines to get the best grade into the mountains. We passed through 11 of these old village sites. They were plainly marked and one could pick up pieces of fine pottery. Scattered on the slopes were many pieces of petrified wood.

Another interesting thing is the little grove of Mexican jumping beans northwest of Coyote wells. At first we thought they were some kind of coffee and ate them raw, but later learned they were jumping beans.

B. F. ROBERTS.

. . .

San Anselmo, California

Dear Mr. Henderson:

I've been sitting here for nigh on to 2 hours trying to figger out how to tell you (in a formal manner) what a helluve nice magazine you have. But now I give up. The only way I can express myself is to tell you to renew it for three years.

JOE WERLEN.

. . .

## Tragedy . . .

Care Walt Disney Studio,  
Burbank, California

Dear Sir:

Disappointment is rife in our household today. It is due to our postman, who has an unusually low I. Q., and who, it seems, dropped our copy of Desert Magazine in a mud-puddle yesterday before delivering it. Consequently, when we pried it out of the mail box it resembled a slab of kiln-dried papier-maché.

I am asking you to send another copy to the above address—and win our heartfelt thanks.  
GRAHAM HEID.

## Butane Gas Fuel

BULK DELIVERIES FOR  
INDUSTRIAL INSTALLATIONS

DOMESTIC USES

TRUCK CONVERSIONS

ALSO

**Kohler Electric Plants**

FOR HOME OR COMMERCIAL USE

**C. C. BELL**

406-8 South "E" Street  
SAN BERNARDINO, CALIFORNIA

## Correction . . .

Fullerton, California

Dear Mr. Henderson:

I wish to take the liberty of correcting the error Dick Freeman made in his article "On Manly's Trail in the Panamints."

He stated that Will Manly and John Rogers purchased their supplies to take back to the survivors in Death Valley, in Los Angeles.

The Manly party did not visit Los Angeles until they, Manly and Rogers, returned with the party which they left camped near Bennett's well.

Manly and Rogers, after reaching San Fernando mission, had started for Los Angeles for supplies, but met a Mr. French who told them he doubted they would be able to purchase supplies in Los Angeles as the miners had bought all available groceries in the pueblo. He, Mr. French, told them if they would accompany him to his ranch, which was at El Tejon, he would supply them with provisions, such as he had.

Manly and Rogers talked the matter over and thought it would take too long to go to Rancho Tejon, as it was over 100 miles out of their course. Mr. French then suggested that he would accompany them back to the Spanish Rancho where they had stopped the night before.

Mr. French told them he knew these people well and they were good people, and he was sure they would do what they could to help them.

About 40 years ago my uncle and I stopped at an old ranch house in San Francisquito canyon to buy some hay for our horses, and were told by the owner that the Death Valley party had purchased its supplies at his place.

I hope Mr. Freeman does not take offense at this correction.

A. O. STOVALL.

*Thanks, Mr. Stovall, Desert Magazine and its writers are always glad to correct their information—and we appreciate the cooperation of readers in making this possible.*  
— R. H.

. . .

## Synthetic Desert Rat . . .

Denver, Colorado

Dear Miss Harris:

You may recall that I recently purchased the back files of your magazine, and also filed claim for a two-year subscription.

Since I am therefore one of Desert's most recent subscribers I think you will be interested in the fact that this evening on page 29 of your current issue I checked off 16 correct answers in the Desert Quiz.

I note with inescapable satisfaction your statement that only dyed-in-the-wool desert rats will be able to give 15 proper answers, and that more than 15 is an exceptional score, seldom attained.

My desert-ratism, however, is largely synthetic. I have visited the desert country many times in connection with my work as a painter of the American Indian and the Southwest, but as yet have not adopted it as my permanent home.

Only in the sense that I have for a great many years been a particular admirer of the type of beauty which the desert affords, can I lay claim to the honorable and honorary degree of Desert Rat.

In conclusion and again, as a new subscriber, I rise to remark that I'm all for Desert Magazine.

G. C. DELANO.

## POINTS OF INTEREST AND THINGS TO DO

at and near

## NEEDLES

.

YOU'LL be thrilled with a trip to the amazing Mystic Maze. Perhaps you'll bump into one of the many scientists who still are trying to trace the history of this strange phenomenon.

.

YOUR friends back home won't believe your stories when you return from a fishing trip on Lake Havasu. You'll hardly believe your "fishing luck" yourself.

.

INSPECT and explore the gem fields in Turtle mountains. Fine specimens have been found by others. Maybe you can do likewise.

.

DRIVE to nearby Mitchell Caverns. Wonder at the beautiful, yet fantastic arrangement of the stalactites and stalagmites with which Nature has decorated these great underground caves.

.

FEEL full of energy? Then try and climb Monument Peak. If you fail be not too unhappy. Remember until recently no one ever did!

.

BRING your camera along for NEEDLES is famous for scenic views that become "prize shots." Chat with the members of the Needles Camera Club — prize winners themselves.

.

BE INSPIRED by many glorious views — from Parker Dam to the Grapevine Canyon. There is plenty to see around NEEDLES and a friendly Chamber of Commerce to help you. Please write . . . COME !!!

.

## NEEDLES

IN CALIFORNIA ON U.S. HIGHWAY 66

## WESTCRAFT



### The Modern Coach

- CROSS VENTILATION
- ROCK WOOL INSULATION
- BOTTLED GAS RANGES
- CIRCULATING HEATERS

\$1195.00 . . . . to . . . . \$1795.00

### GEORGE T. HALL

SO. CALIFORNIA DISTRIBUTOR  
5614 W. Washington — Los Angeles  
PALM SPRINGS TRAILER VILLAGE  
Palm Springs — California

## On Desert Trails

With EVERETT RUESS

The story and letters of Everett Ruess, young artist-vagabond who disappeared on one of his beloved desert exploration trips

### IN BOOK FORM

Includes his desert letters, reprints from his diary and illustrations of Everett's own block prints.

MAILED POSTPAID FOR \$1.50  
(Add 5c tax in California)

THE *Desert* MAGAZINE  
EL CENTRO, CALIFORNIA

SUBSCRIBE TO

## Hoofs and Horns

To Keep Abreast of the RODEO GAME and its HAPPENINGS—

Its news about Rodeos and Roundups is the most authoritative of any published in America. Rodeo Association bulletin and Cowboy's Turtle Association news are published monthly.

Those who enjoy poetry of the Old West will revel in the abundance of truly typical poetry that appears in each issue of Hoofs and Horns. You'll like Hoofs and Horns!

Each issue is generously illustrated with pictures of the people and places that are important to the current and past history of the Range country. Don't miss a single copy!

### Subscription Rates

1 YEAR \$1.00	2 YEARS \$1.50
3 YEARS \$2.00	5 YEARS \$3.50

MONEY MUST ACCOMPANY THIS ORDER

SEND NAME AND ADDRESS TO

HOOFS and HORNS  
P. O. Box 790 Tucson, Arizona

## BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

### OLD, OLD CONFLICT—IN A NEW MEXICO SETTING

In a blue valley high in the Sangre de Cristo mountains, life is peaceful and happy for the little community of primitive, deeply-rooted people. Time is counted only in terms of an occasional cloudburst and flood, a decade labeled by one such washout. A swollen stream or a seared slope marks the seasons. Here, life is free and unharassed by the complexities of civilization until the searching tentacles of progress begin to creep in.

In PEOPLE OF THE VALLEY, Frank Waters presents the story of their destiny, the destiny of the people of three races fused into a tiny wilderness empire, dominated by the shrewd, benevolent Maria de la Valle.

Even into this remote valley changes must come. It is to be dammed for water reserves and the land, belonging to the Spanish and Indian families, must be sold to the government. There are those farsighted enough to buy up the land, light-skinned people who know what is going on. But the people of the valley know little about looking for profit in their simple communal life, so they vote blindly, unknowingly, for the dam.

Only Maria, the old herb woman, knows. Blessed with intuition born of a life close to the earth, she feels instinctively that the care-free life that is the heritage of her people will be lost somewhere in the lake that is to come where there was never a lake before. "And a new road, a slick shiny road. Many automobiles will come whizzing by where one chugged, bogged down and was dragged out by teams before." Thus Maria reasons out what the trouble is and leads her people into revolt.

While the story portrays the inarticulate, economically uncounted people of a lonely valley, it is essentially the life of the half Indian, half Spanish Maria and her influence over those whose existences are so closely allied with her own. Her strange, primitive philosophy is developed, it seems, from the first day of her life when she first clutched a bit of earth in her hand, through the days spent herding goats, to her later years when she becomes the leader of the blue valley people of New Mexico, and finally to the very moment of her death.

Mr. Waters writes with superb understanding of the people of the long-hidden valley. Even in the tragedy of the Crucifixion ritual of the Penitentes that so upsets Maria's life, we feel the power that lies behind the mysticism inherent in those who must battle a difficult land for sheer existence. It is a proud story of a proud people, one that the reader will not soon forget. Farrar & Rinehart, publishers. \$2.50.

MARIE LOMAS.

### THIRD WIFE OF A MORMON PIONEER

Mormonism for the first time is presented from a woman's viewpoint in THE GIANT JOSHUA, a Houghton-Mifflin fellowship novel by Maurine Whipple, native of Utah and descendant of Mormon pioneers.

The colonizing in the 1860s of St. George, remote outpost in the Utah desert, provides the setting for the life of Clory, young third wife of dour and righteous Abijah MacIntyre. Rebellious against a life of sharing her husband

with two older wives, a life of struggle against floods from the Virgin river, against drought and famine and Indian raids, grasshopper plagues and epidemics, she finally learns to subdue her natural inclinations for the sake of the common ideals to which the Mission is dedicated.

It is an intimate and personal story filled with compassion for the tragedies and frustrations of its characters. These pioneers were "human beings by birth and only saints by adoption," and the author presents this theme with deep understanding.

Even without the personal history of "Handsome Mac," his three wives and his son Free, of Lon Tuckett and his German Betsy, of Pal Wight and her husband David—this would have been a moving chronicle of Mormonism. The land itself portended drama. When the colonists of the Dixie Mission reached St. George, they recalled Brother Brigham's advice about choosing a place nobody else wants. "Well, folks, only the lizards want Dixie. But think what that means! . . . Long after the gentiles have invaded the north, they'll let us alone . . . Forever, alone, folks, to tame the lizards, to sink roots we'll never have to tear back up, to actually build the Land-of-the-Unlocked-Door!"

Symbolic of the faith and tenacity of Clory and her people, who had lived through fire and death and had come out whole and together, was the giant Joshua with its upward twisting arms and roots thrust deep in a stern land. Houghton Mifflin company, January, 1941. \$2.75.

—LUCILE HARRIS.

. . .

### WORK AND PLAY IN THE LIFE OF A PARK RANGER

OH, RANGER! is not just a book about national parks and monuments. It is a useful guide to all out-of-doors adventuring. Through its pages runs the lore of deserts, mountains, Indians, animals and the greatest of our natural wonders. It answers the hundreds of questions that "Dudes" and "Sagebrushers" and "Savages" are always asking the rangers.

It tells how to pack for a camping trip, gives precautions for mountain and desert driving, and for hiking trips. There are reminders on the proper care of campfires and campsites and even suggestions on the correct out-of-door clothes to take along on a visit to a national park.

First published in 1927, the co-authors, Horace M. Albright, former director of the national park service and Frank Taylor, journalist, have gathered into this one not-too-large volume a wealth of information interspersed with anecdotes that give the reader a clear-cut picture of trips he will enjoy. For the stay-at-home it is a vivid and often amusing account of life in the national parks and monuments.

There is a "story," too, in each one of Ruth Taylor's cartoon sketches generously sprinkled throughout the book. Photographs illustrate a typical park ranger's cabin, a ranger on patrol as well as scenic points throughout the chain of parks.

One entire section of the book is devoted to thumbnail sketches of the individual parks and monuments. There is a brief mention of the history of each, of the chief points of interest



and something of the facilities that are available for lodging or camping. The travel season for each is given.

The national monuments are grouped according to the outstanding feature of each. Short paragraphs on those identified with archaeology, history, geology, and biology appear under the separate classifications.

OH, RANGER! in short is a readable guide book that is worth its weight in any car bound for recreational areas. Dodd, Mead & co., publisher. \$2.00.

## THE ART OF COOKING —WITH CHILE PEPPERS

In *FOOD OF THE CONQUERORS*, Margaret Abreu of Santa Fe, New Mexico, tells of native dishes from the recipe book of her mother and grandmother. The very names recall those early New Mexico days when the señoras from Spain learned how to prepare food in the Indian way.

Since 1540, when Coronado entered the Southwest, corn, beans and game meat seasoned with chile peppers have been the main food of the natives. The dry sunny climate of New Mexico largely determined the methods of preparation, many of the recipes being based on dried foodstuffs.

From the more familiar *albondigas*, *enchiladas*, *tamales*, and *frijoles*, the reader is introduced to the intricacies of the elegant *bizcochitos* served at weddings and christenings, *capirotada*, glorified *calabacitas* (little squashes), and dishes made of blue corn meal and various kinds of *quesos* (cheeses).

*Cabrero*, or baby goat, in New Mexico is "as seasonal as watermelon in the south." There is no waste in a *cabrero*—and from the first stage of butchering down to the final stages of such delicacies as *espinacito*, *sangrecita de cabrito* and *burrinates*, Mrs. Abreu describes how this almost "lost art" was practiced by the women of her family.

Although the recipes are authentic, they have been simplified for practical use, and a glossary gives the pronunciation and translation of the Spanish terms. Myrtle Stedman contributed the decorative drawings. 35 pages. \$1.00.

## TRUE OR FALSE ANSWERS

Questions on page 9.

- 1—False. Rattlesnakes are sluggish when it is cold.
- 2—True.
- 3—True.
- 4—False. First mission at Tucson was established by Father Kino.
- 5—True.
- 6—False. Pipe Springs national monument is in Arizona.
- 7—True.
- 8—False. Catalina mountains are near Tucson.
- 9—True.
- 10—False. The old Butterfield line crossed the Colorado at Yuma.
- 11—False. Occasionally a white Ocotillo is seen.
- 12—True.
- 13—False. Burros were brought to the desert by the Spaniards.
- 14—False. Ballarat is in California.
- 15—True.
- 16—True.
- 17—True.
- 18—False. Azurite is a copper ore.
- 19—False. Hualpai reservation is in northern Arizona.
- 20—True.

## NEW GUIDE BOOK ON STATE OF COLORADO

Another volume in the American Guide Series, published by Hastings House in February 1941, is *COLORADO*. A Guide to the Highest State. It follows the form of the other guides and maintains their same high standard in both text and photography.

The text is made up of two main parts: the physical, historical and economic background, and the popular Tours, logging 21 trips. There is a special section on the Rocky mountain national park, including four tours.

Photographic sections include In the Rockies, History, Cattle Country, Mining and Milling, In Cities and Towns, National Forests and Parks, The Farmlands.

Of special interest to Desert people will be the section on Mesa Verde national park, just north of the New Mexico state line, and material included on three lesser known national monuments: Great Sand Dunes, Yucca House

and Hovenweep. Remains of prehistoric Indian cultures and the modern Ute tribe are also links with the Southwest.

Additional information is provided by a calendar of events, guide to recreation, chronology, maps, reading list, population figures and index.

Sponsored by the Colorado state planning commission, compiled by workers of the writers' program of the Work Projects Administration. 115 photos, 511 pages. Buckram bound. \$2.50.

## INDIAN PHOTOGRAPHIC STUDIES

A distinctive addition to Americana is *ARIZONA INDIANS*. The People of the Sun, published in February 1941 by Hastings House, New York. The author-photographer is Joseph Miller, an Arizonan who apparently knows his subject. In compact paragraphs he describes the salient characteristics of the 15 tribes represented in his state—then his camera portrays members of these groups in a superb series of photographs. Cloth bound. 60 pages. \$1.00.

## the SOUTHWEST on your bookshelves

Its history and romance, people and places, flora and fauna — every aspect of the romantic Southwest is captured in these fascinating books.

"Arizona Indians," fifty superb portraits of representative tribes. By Joseph Miller, 1.00

"Hot Irons" by Oren Arnold and John Hale. The dramatic history of American cattle brands, 2.50

"The Cacti of Arizona," a complete handbook, published by the University of Arizona, 1.00

Also published by the University, "Arizona Place Names" by Will C. Barnes, 1.50

"Triggernometry," a gallery of gunfighters by Eugene Cunningham. Special edition, 4.00

"Arizona," a guide to the Sunset State. Complete and informative with many photographs, 2.50

The story of the lost gold in Superstition Mountain, "Trail of the Lost Dutchman" by Barry Storm. Copper paper cover, 1.00

"Kinishba," the saga of a people who disappeared from the Arizona scene centuries ago. By Dr. Byron Cummings, the eminent archaeologist, 3.50

"Arizona Portraits" by Barry Goldwater. 24 photographs, lithographed for framing, 1.00

"Loot of a Desert Rat," a book of western photographs in many moods. By Max Kegley, 1.00

"Roundup," an anthology of western fun, fact and fancy in stories and poems. By Oren Arnold, 2.00

"An Odyssey of the Green and Colorado Rivers," by Barry Goldwater. The intimate journal of 3 boats and 9 people. Illustrated with photographs, 50c

Mail orders promptly filled.

All books sent postpaid anywhere in the United States



Phoenix

GOLDWATERS

Arizona



## Go Places and See Things in this AIRLITE model

Sail over the highways, take the grades in high. Follow desert trails or mountain roads . . . wherever fancy beckons.

Light weight, high road clearance, knee action, insulated walls, Masonite exterior, BIG interior, two double beds, stove, heater, refrigerator, clothes closet, drawers and lockers.

America's ideal vacation trailer. Over a thousand on the road.

**\$495.00 Terms**

## AIRSTREAM TRAILERS

... Since 1931

1908 Magnolia Los Angeles, Calif.  
(near 1400 W. Washington)

If you're coming to see the  
**DESERT WILDFLOWERS**  
Be sure to visit our shop  
while in the Coachella Valley

## DESERT SUN RIPENED DATES

Dates. Tangerines. Grapefruit. Refreshments, fruit juices. Prompt attention to mail orders.

**THAYER DATE SHOP**  
Operated by H. L. Waldo

On Highway 99, 2½ mi. W. of Indio.  
Just 30 minutes from Palm Springs.



EUROPEAN PLAN

...your headquarters when  
you come to

## PALM SPRINGS

An hotel of quiet charm, Excellent cuisine in Azure Room, Outdoor Dining Grill and "The Buckboard" in the "Saddle Bar X" Cocktail Lounge.

TENNIS COURT . . . . . BADMINTON  
PING PONG . . . . . HORSEBACK RIDING  
SWIMMING POOL

**Mr. and Mrs. Thomas H. Lipps**  
MANAGING OWNERS

# Desert Place Names

For the historical data contained in this department the Desert Magazine is indebted to the research work done by the late Will C. Barnes, author of "Arizona Place Names;" to Betty Toulouse of New Mexico, Hugh F. O'Neil of Utah, Marie Lomas of Nevada, and Charles Battye of California.

## ARIZONA

### APACHE MAID MOUNTAIN

Coconino county

At the head of Wet Beaver creek. (T. 15 N., R. 8 E.) R. W. Wingfield of Camp Verde writes, "About 1873 U. S. troops in a fight with Indians at this point killed an Apache woman. Her living baby was taken to Fort Verde by the soldiers who gave the mountain this name." Forest Ranger Oscar L. McClure gives another version: "The first settlers came through this region with troops moving from Santa Fe to Camp Verde. From the Mahan mountain they sent a scout ahead who was to start a big smoke for them to follow when he found a good trail. When the smoke first raised, a young Apache girl saw it and came to the fire. She had been lost for several days and was nearly starved. She stayed with the party and was eventually adopted by one of them." McClure says this story came to him from a member of the party named Gash.

### APACHE PASS

Cochise county

Narrow defile between Dos Cabezas and Chiricahua mountains. In early days this pass was used generally by travelers through southern Arizona. Apaches were very active and many white people were killed here. Fort Bowie was established here in 1862 (Desert Magazine Place Names October 1938), 14 miles southeast of Bowie rr station.

## CALIFORNIA

### LUBECK PASS

San Bernardino county

South of Needles on Blythe road. Name derived, writes Charles Battye, from Bill Lubeck, a pioneer who settled on the Colorado river in pre-railroad days. His rancheria was located five or six miles below present town of Needles. He owned a bunch of cattle, also many mining claims in the hills. He was an adopted member, by marriage, of the Chemehuevi Indian tribe.

### GREENWATER

Inyo county

This town once sprawled for two miles along the slopes where men dug for riches. Now the visitor finds . . . "only a scattering of beer bottles, weatherbeaten boards, and a few stone foundations, amid the desert vegetation" once more covering the hillsides. Gold and silver were found here, in the eastern side of Death Valley, in 1884, but the settlement did not become active until 1905, when copper was discovered. Greenwater then boomed after the manner of mining towns and had a

newspaper, banks and numerous saloons. Early automobiles snorted and jerked their way over the hills. Although everything, even water, had to be carried in, two or three thousand people lived here and combed the adjacent hills for prospects. One claim was registered as being in Cemetery park, Funeral range, Death Valley. The deposit of ore, though rich, was shallow and Greenwater dwindled rapidly. This sketch of the town's history is taken from the American Guide Series.

## NEW MEXICO

### ARROYO COMAL (ah-roy'-oh coh-mahl')

Rio Arriba county

Sp. "Arroyo of the stone, or pan to cook tortillas." The Tewa Indians call it *Buwa-kuko*, "breadstuff stone barranca." Name has become established through common usage for a long period, for this is one of the localities from which Indians and Spanish alike have obtained the fine-grained sandstone slabs which when cut and polished are used for baking the wafer bread called tortillas by the Spanish.

## NEVADA

### GENOA

Douglas county

First permanent settlement in Nevada and one of the 17 towns in the United States to be named for the home town of Christopher Columbus in Italy. It was originally known as Mormon station and was settled by part of DeMont's party who left Salt Lake City for California in 1850. Among those who decided to locate here in the Carson valley was H. S. Beatie, who built what was probably the first house in Nevada, after opening a trading post for emigrants. In 1855 the ground was surveyed and the name of the settlement changed to Genoa. Here the first written record was made relating to the future of Nevada, with inauguration of a territorial government. The Territorial Enterprise, later to become Virginia City's leading newspaper, famous for its Mark Twain columns, was founded 1858, in Genoa.

## UTAH

### BOTHWELL

Box Elder county

Pop. 300. Settled 1894. Named in honor of builders of the Bothwell canal, diverting water from the Bear river, making possible cultivation of many acres of new land. Formerly called Roweville, probably for a pioneer family.



# HERE AND THERE ... on the Desert

## ARIZONA

### Kingman ...

Six-inch trout—100,000 of them — have been planted in the Colorado river at Willow Beach below Boulder dam, by the U. S. fish and wildlife bureau. These are larger than any trout previously planted in the river, and the news pleases members of the local fish and game association, who say fingerlings are too small to survive in the struggle for life.

### Yuma ...

Fate of unbranded wild burros roaming in the Kofa game refuge hangs in the scales of justice. Judge R. H. Lutes has continued to a later date a hearing on the state livestock sanitary commission's complaint asking condemnation of the animals. Petitions have been signed here by persons opposed to destroying the burros, appeals have been sent to the legislature for law to protect them. Wildlife conservationists say the burros compete with bighorn sheep for water in the arid mountains of the refuge.

### Tucson ...

Because Fred A. Dragonette, assistant cashier at the Southern Arizona bank here, knows his gold, a woman customer of the bank may receive more than \$150 instead of about \$25. The customer found a tiny bar of gold, about an inch long, half an inch wide and one-eighth inch thick, among personal effects left by her father when he died. The bar was stamped, "Moffat & Co., 20 $\frac{3}{4}$  carats, \$16." Her father got it in 1848 in California, when business concerns were issuing their own coinage. Dragonette advised the bar's owner that at current price of gold, the piece is worth approximately \$25, but as a rare numismatic item, she might get much more for it.

### Grand Canyon ...

This story comes from the national park service: A Tennessee visitor to Grand Canyon found and gave to park officials a gold ring bearing the initials "H. B. H.", a coat of arms and the inscription, "15 years honorable service." A park official on a trip to Seattle, Washington, showed the ring to jewelers, who identified it as the product of a New England firm, whose records showed it had been made for the head of a Philadelphia business. Pursuing this lead, park officials found the ring's owner was dead, but had a son living. To this son the ring was restored. It had been lost when the son fed a lump of sugar to one of the mules on which tourists ride down the long trail from top to bottom of the canyon. The mule snatched the ring from its feeder's finger.

### Phoenix ...

War is delaying shipment to Arizona of a natural history collection valued at more than \$1,000,000, a gift to the state by A. Kingsley Macomber of Pasadena, California. Specimens range from birds of paradise, to tigers, lions, bears and pythons. One elephant head bears 9-foot tusks, there is an anaconda 27 feet long. These and hundreds of other specimens are now housed near Paris, in the occupied zone of France. Donor Macomber writes that he feels sure the transfer to Arizona "can be made as soon as possible." He promises delivery at Phoenix without cost to the state. His gift was made at the instance of Maj. Frederick Russell Burnham, explorer, Indian scout, author and pioneer Arizonan.

### Window Rock ...

Woe to the Navajo who looks on the face of his mother-in-law. Again the tribal council refuses to give up the old tradition that it's worse luck than breaking a mirror if he sees his wife's mother eye to eye. Last year the council heard arguments from both sides when a formal proposal was submitted to abandon official recognition of the mother-in-law jinx. Then the councillors voted no; now this action is re-affirmed a year later.

### Flagstaff ...

Title to 214,609.57 acres of Coconino county land has been transferred from the Santa Fe railroad to the department of the interior. The land is, for the most part, within boundaries of the Hualpai Indian reservation and will be incorporated into the reservation.

### Phoenix ...

Early construction of the Wickenburg-Kingman highway cut-off and building of a road from Kingman to the site selected for Bullhead dam on the Colorado river has been urged on the state highway commission. Delegations urging this program told state officials they had information the federal government will start soon to erect a \$22,500,000 dam at the Bullhead site to provide 180,000 additional horsepower of electric energy for Southern California defense plants. The new highway advocates said the dam site could be reached by a 30-mile road branching from the Kingman-Boulder route five miles north of Kingman. Bullhead project plans have been prepared by the reclamation bureau, the location 75 miles below Boulder dam. It will also irrigate 4,000 acres in Arizona.

### Kingman ...

Three hundred delegates to the 37th annual convention of Arizona cattle growers association heard speakers assail proposed agreements with South America for importation of beef into this country. J. Elmer Brock, president of the American national livestock association said, "No single nonmilitary disaster would more seriously disrupt national defense than an outbreak of hoof and mouth disease," and this disaster he feared might result from bringing in diseased beef. This nation's livestock industry is equipped to supply our needs in peace or war, he added. In 1940 United States beef cattle numbered 43,435,000 head and are on the increase, Brock reported. He estimated between 40,000,000 and 50,000,000 are required.

## CALIFORNIA

### El Centro ...

Experimental rice growing in Imperial valley will be expanded if Arthur Hofman and O. Dahlquist carry out their plans. They bought 2200 acres of land held by the local irrigation district west of Imperial. Appearing before district directors, Hofman said his program calls for building a \$25,000 rice dehydrating plant and a crop investment of \$125,000.

### Thermal ...

Improvement of the highway along the north shore of Salton sea is the aim of an association organized here. D. B. W. Alexander, vice president; Ralph Roblee, secretary-treasurer and W. H. Grant, publicity chairman.

## Desert Lodge RANCHO BORREGO



An informal American Plan guest ranch with the open-hearted hospitality of early California days.

Meals  
\$1.00 \$1.25

You may now come to Borrego knowing that moderate priced accommodations are available for you and your friends.

(Mail 3 times a week)  
Accommodations are limited

For Reservations write  
DESERT LODGE—RANCHO BORREGO  
Borrego, California

A REAL DESERT RESORT

NOEL CRICKMER  
RUTH BELL CRICKMER  
Managing Owners



\$2.  
PER  
PASSENGER

See Los Angeles from the air in a safe, helium-inflated airship! Charter Rates on request. For reservations and tickets telephone LAfayette 2153 or write...

GOODYEAR AIRSHIP OPERATIONS  
Box 3339 Terminal Annex, L. A.

## OPPORTUNITY

Have recently discovered large body of decorative pink and buff mottled marble. Polishes very beautiful. Can be quarried to show rich coloring. Makes fine aggregate for terrazzo material. Want company or architect to develop. Oiled road to quarry, 6 miles to railroad, water power available. Other building stone and green quartz.

W. E. TOPHAM

1014 W. 27th St., Cheyenne, Wyoming

... BETTER DEALERS FEATURE ...

**LIFETIME**  
REG. U.S. PAT. OFF.

FLEXIBLE STEEL  
VENETIAN BLIND **SLATS**

## Calexico . . .

Governors of the two Californias met at the international line here, together witnessed Calexico's desert cavalcade, and together attended at Mexicali, across the border in Mexico, the convention of the International Four states highway association. Gov. Culbert Olson came down from Sacramento to meet Governor Rodolfo Sanchez Taboado of Baja California and the two exchanged felicitations of perfectly good neighbors. Thousands of visitors came from far and near, drawn by the pageants presented in the sister communities on the border.

## Palm Springs . . .

North America's largest bird, the California condor, now almost extinct, is reported in the rugged Santa Rosa mountains by Ranger Richard H. May. May says he saw one

of the great condors in battle with a hawk. May could see the condor's white under-wing bars, its bare neck and orange head. Foresters say that since the condor has only one mate and mates for life, it may have a companion in the Santa Rosas. The California species, kin to the Andean condor, has a wing spread of about nine feet, weighs 20 pounds or more and its feet are larger than a man's hand.

## Needles . . .

One of the largest game preserves in the desert area, the Havasu lake national wildlife refuge, includes approximately 37,370 acres, bordering on both sides of the Colorado river from two miles south of Needles to Parker dam. The area is in Mohave and Yuma counties, Arizona and San Bernardino county, California. Hunting and trapping in the refuge is prohibited under presidential

order, but the Needles Nugget is authority for the statement that fishing in the lake will not be affected, earlier regulations federal and state remaining unchanged.

## Indio . . .

From 15,131 bearing acres, Coachella valley produced crops during 1940 valued at \$2,539,999. W. W. Wright, county agricultural commissioner reports. Dates led the list in returns, with a total of \$623,741.14; tomatoes were in second spot, with \$445,500 and corn was third, returning \$294,535. More than a quarter million dollars worth of Thompson seedless grapes were marketed; green beans accounted for \$167,520, grapefruit brought \$112,649.46 and alfalfa \$91,000. Eggplant, onions, cotton and peppers followed in order, among the 24 products reported. At the bottom of the list Malaga grapes sold to the tune of \$1,063.07.

## NEW MEXICO

### Santa Fe . . .

Here's what New Mexico cowmen, 1941 model, who "talk and dress like their bankers," endorsed in the way of laws at a recent pow-wow here:

Tattooing, in lieu of branding, for pampered dairy and registered stock; bill of sale must be exhibited by every person moving cattle, or it shall be prima facie evidence the cattle were stolen. Repeal was favored of a section of the state code which declares it "unlawful for any Indian, belonging to any savage tribe, to permit any mule or horse under his control or in his possession to be loose or grazing within one league of any cultivated field or ranch of any civilized inhabitant of this state." More than 1,000 cattlemen were expected to attend New Mexico's 27th annual convention at Albuquerque, March 24 and 25.

### Carrizozo . . .

Its history dating back to the bloody Lincoln county cattle wars of the '80s, its million acres sprawling 54 miles in one direction and 30 miles in width, the famous Three rivers ranch of Albert B. Fall will be turned into a dude ranch. March 1 the property was turned over to a syndicate of four buyers. Evicted by law, after years of fighting to clear the property following the Teapot Dome scandal of the Harding administration, Fall is now a patient in the veterans hospital at Albuquerque, 80, feeble and broken. His wife, unyielding defender of her husband's name, owns a store on the ranch, and about 40 acres. Of all the vast Fall holdings, this little spot and a house in El Paso, Texas, alone remain to the family.

### Acoma . . .

Thumping tom-toms and intricate dances by colorfully clad tribesmen featured inauguration of George Cerino as governor of this "sky city," built hundreds of years ago on the top of a towering mesa. Cerino is one of 19 pueblo governors elected since the first of the year by Indian communities according to their ancient customs without interference from Uncle Sam.

### Santa Fe . . .

"It is the way of things, amigo mio," shrugs state senator George Washington Armijo, sr. "We love our Spanish language but we are all Americans together, que no?" Thus he comments on the changing days as Spanish fades from New Mexico's legislative halls, where once it was the official language. Bi-lingualism, passing since the disappearance of interpreters in the senate in the late '20s, took another knockout this year when the solons voted, for the first time in the legislature's history, not to print their bills in Spanish as well as in English. Economy is the reason.

# Beyond the dreams of the Mountain Men

When Ol' Bill Williams and Pauline Weaver were trapping and prospecting along the lower Colorado river they never dreamed that the day would come when this great stream not only would supply irrigation water for hundreds of thousands of acres of arid lands, but would also be supplying electrical energy to churn the butter, make the ice, grind the coffee, cool the homes, and do a thousand and one other services for the people in this once-arid land.

## And yet, that day has come!

Today, the electrical lines of the Imperial Irrigation District are carrying energy—generated from the waters of the Colorado—to stores and shops and factories and homes of thousands of American citizens who dwell in this reclaimed desert.

Thanks to the widespread distribution of District-owned power, the most humble ranch home now has electrically driven equipment which provides not only the comforts but the luxuries of the metropolitan areas.

**IMPERIAL IRRIGATION DISTRICT IS A COOPERATIVE ENTERPRISE  
IN WHICH ALL THE CITIZENS OF THIS AREA HAVE A DIRECT  
FINANCIAL INTEREST. BY FAILING TO CONNECT YOUR METERS WITH DISTRICT  
POWER LINES YOU ARE PENALIZING BOTH YOURSELF AND  
YOUR NEIGHBOR.**





## Albuquerque . . .

New Mexico's wool growers will meet in Albuquerque next year. At their annual convention in February, the sheepmen elected Floyd W. Lee of San Mateo to head their association. Isabel Benson, secretary of the organization, reported estimates place gross cash income from the sheep industry in the state for 1940 at about \$10,000,000. Sheep population she gave as 2,225,000, including animals owned by the Navajo Indians. This is said to be about the safe carrying capacity of available ranges.

## Gallup . . .

Away back in 1873, says the Gallup Independent, a United States army officer named Wheeler made a survey of the military area about Fort Wingate. When engineers began the recent survey in that section preliminary to the new ordinance depot construction, they hunted up these old records and found many references to copper spikes as boundary markers driven in "the north side of a cedar tree three feet from the ground" at such and such a point. The surveyors have actually been able to locate many of these markers, after nearly 70 years, although instead of being three feet above ground, they are now 12 or 15 or 20 feet, and instead of being on the north side of a tree they may now be on the south side, through the twisting growth of the tree.

## NEVADA

### Yerington . . .

Huckleberry Finn's story has been re-enacted for local boys who found more than \$2,000 in old-style currency stuffed into tin cans they uncovered near abandoned Blue Stone millsite west of town. District Judge Clark Guild has awarded the money to its finders. When merchants noted an influx of the oversized bank notes, investigation revealed source of the money, most of which was then impounded by the sheriff, pending action by the court.

### Carson City . . .

Big game population of Nevada includes 50,000 to 60,000 deer, 11,000 antelope, 1100 mountain sheep and 250 elk, according to testimony by I. H. Hanson, federal predatory animal expert, a witness before the assembly fish and game committee. Hanson said deer have become too plentiful in some areas, antelope are increasing rapidly in northern Washoe county and may soon become a problem.

### Las Vegas . . .

"This is the most beautiful place to put trout I ever have seen but one of the most difficult in which to construct a hatchery." So said Fred Foster, director of the bureau of fisheries for the Western United States. He referred to the Colorado river area below Boulder dam. Foster is preparing a report on the project. It is proposed to plant young fish, thus stocking the river where conditions are said to be ideal for growth, unfavorable for spawning.

### Reno . . .

Six hundred fifty thousand acres of land are included in three erosion control projects for Nevada announced by the department of the interior. Largest of the three is Virgin mountain and Mormon mesa project, 300,000 acres in Clark county; others are Desert creek, in the west central part of the state, 100,000 acres and Meadow valley wash in Lincoln county, 250,000 acres. Money has been set aside for revegetation of grazing

lands, construction of check dams, diversion dams and ditches, water spreaders and stock tanks.

### Carson City . . .

To bring Nevada forest roads and trails up to planned efficiency by 1950 will call for spending \$6,816,600. This is forest service figure for program including 418 miles of forest highways, 963 miles of forest development roads and 1882 miles of trails.

## UTAH

### Salt Lake City . . .

Utah's 1940 was wetter than average, general precipitation from 123 station reports

15.78 inches, greatest since 1936, exceeded in only seven of the 49 years of record. St. George reported the state's highest single temperature reading, 112 degrees in June and again in August. Woodruff, Rich county, turned in 40 degrees below zero as the year's lowest temperature. Average Utah snowfall was 56.9 inches—six inches above normal.

### Linwood . . .

First wool contract of the 1941 season was announced when Keith Smith sold his clip at 32 cents per pound, 5,000 fleeces in the sale. It is earliest wool contract of recent years, about two and a half months ahead of shearing season.



**the Branding Iron dress**

\*Trademark registered  
U. S. Patent Office

A \*Desert Fashion featuring over one hundred and fifty of the world's most famous cattle brands. The original and exclusive Branding Iron print is made into a sports frock with wagon wheel buttons, saddle stitched pockets and a studded belt. White brands on brown or dubonnet; navy, brown or red brands on fine cream-white muslin. Sizes 12 to 20.

**7.95**

Mail orders promptly filled; write Department 4D.

**Phoenix GOLDWATERS Arizona**

## Attention!

COLLECTORS — LAPIDARIES  
STUDENTS — PROFESSIONALS

## F. H. CRAWFORD

dealer in  
Gems and Lapidary Equipment

now in

## 2 LOCATIONS

For the convenience of the amateur, student or professional — collector, lapidary or jeweler, we have opened a

### NEW STORE at

4641 Crenshaw Blvd. — Los Angeles.

(Note: We will continue to serve our customers with a complete line of gems and lapidary equipment and supplies at our old location — 922 N. GOLDEN WEST AVE., ARCADIA, CALIFORNIA.)

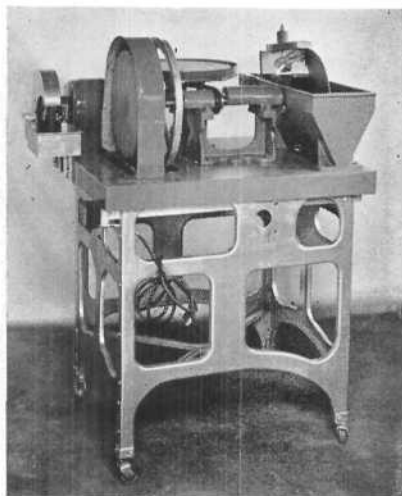
### — SEE US FOR —

Cut Gem Stones, Cutting Material, or Specimens—Gem Mountings — Lapidary Machines — Crawford Diamond Saw Blades — Abrasives — Diamond Bortz — Polishing Wheels — Felts, etc.

Complete Line of Gems, Gem Material, Lapidary Equipment and Supplies.

BEFORE BUYING, BE SURE TO SEE

**CRAWFORD'S Complete Combination Saw, Lapping and Polishing Machine.**



**COMPLETE MACHINE \$125.00**

(plus tax in California)

## CRAWFORD'S

Gems and Lapidary Equipment

— 2 LOCATIONS —

4641 Crenshaw Blvd. — Los Angeles  
922 N. Golden West Ave. — Arcadia

# Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

—ARTHUR L. EATON, Editor—

### MANY PRIZES TO BE OFFERED AT OAKLAND

Liberal merchandise prizes have been offered by dealers and collectors to supplement the ribbon awards provided for exhibit winners at the Oakland-Berkeley, California federation program May 10-11, according to the announcement of Chairman Orlin J. Bell.

Topping the list is the grand prize to be given the society with the best officially entered exhibit. It is a beautiful walnut plaque, in the center of which is a shield with suitable engraving. It is a perpetual trophy, and smaller shields have been provided for the inscription of successive winners. The winning group may keep it for one year—and a three-time winner may keep it permanently.

In the individual amateur class the honor awards will be blue, red and white ribbons. Supplementing the blue ribbon in the first prize class will be trophies of the latest streamlined type. Special dealer awards in several classifications will augment the prizes provided by the executive committee.

The ribbon award in the second prize class will be supplemented by such items as books on mineralogy, abrasives, etc., while in the third prize class the ribbon will be supplemented in the main by geologists' picks of first quality.

In addition to ribbon awards in the junior division there will be medals in the first prize classification of a type calculated to delight the hearts of winners. Second prize winners will not be far behind.

• • •

### AUSTRALIAN DESERT SOURCE OF MANY GEM MINERALS

Most rock collectors know Australia as the home of the black opal, but it is also the home of many of the world's strangest animals, birds and fish, the prehistoric lung fish, the kangaroo and the emu, the bitter and mopoke, the platypus (ornithorhynchus—neither bird nor animal), the wombat and laughing kookaburra.

A letter from N. H. Seward, gem exporter at Melbourne, describes his homeland as a semi-desert country similar to many parts of Southern California, a land of fruit, wheat and vast herds of sheep and cattle. The mountains and deserts also produce rare gems and minerals, such as opals, sapphires, topaz, zircons, meteorites, also gold, silver, copper and other metals in abundance.

Australia is much like the arid country of the American southwest also in the brilliance and glory of its sunsets and sunrises. It almost seems to one accustomed to the desert as if the brilliant lights and shadows had become embodied in the opal itself, most gorgeous of all gems.

### Bassanite Deposit Found

A recent find of gypsum in Imperial county, California is in the form of bassanite. This is true gypsum in its chemical formula (calcium sulphate) but is distinct physically. It takes the form of slender, positively elongated needles. Sometimes found in small masses, it cleaves readily into slender needles instead of grains or plates as in ordinary gypsum. When heated, it changes to anhydrite. As far as is known, the first bassanite was found in lava ejected from Mt. Vesuvius.

## Misnamed Minerals

### "Moss Agate"

The moss-like inclusions of moss agate have long furnished food for thought to amateurs and scientists alike. Some amateurs have believed that the inclusions are true vegetable forms, and others have even gone so far as to identify many varieties by name.

Modern mineralogists and chemists have long known that the moss agate is not of vegetable origin but is due to inclusions of manganese dioxide (pyrolusite) and other minerals. Some think the mineral in solution finds its way into tubes or cavities of the porous agate and spreads in such a way as to imitate mossy forms, others that the inclusion was already in the silica gel at the time of its original cooling and so was formed at the same time as the clear rock itself. All agree, however, that it is one of the most beautiful and attractive of all agate forms.

• • •

### COLLECTOR MAKES STUDY OF VOLCANIC BOMBS

Bert C. Boylan, district attorney of Deschutes county, Oregon, is taking advantage of the fact that he lives in a highly volcanic region of very recent date, to study and collect volcanic specimens of very fine quality. Among them are tiny "currants" of lava, collected from caves and protected walls, and "lava bombs." The "bombs" are roughly oval in shape and vary in size from that of a bean to really ponderous dimensions. These lava bombs are spewed from the crater and seem to take their oval shape from a whirling motion while traveling through the air. The large ones cool on the outside but retain a quantity of molten matter within. When the bomb strikes the earth, if it lands in a hill of soft ash or cinders, all well and good, but if it strikes a mass of cold lava or hard earth, it is likely to explode in true bomb fashion. Thus, the loosely built cinder cones furnish many of the finest specimens.

### MINERAL IDENTIFICATION SIMPLIFIED

By O. C. SMITH, A.B., A.M.

"CLASSIFIES ALL MINERALS TO 1940"

Simplicity for the amateur, Completeness for the professional.

Complete BLOWPIPE METHODS and TABLES.

Price — \$3.50 — Plus tax in California

Order from - O. C. SMITH - Dept. D  
5157 Santa Ana St. — Bell, California

### • CACTUS STONE •

From Death Valley Area  
\$1.00 per lb.

One of the many unique gem materials to be had at

Paul & Bessie Walkers' Hobby Shop  
Calimesa, California  
(Between Redlands and Beaumont)



## AMONG THE ROCK HUNTERS

E. P. Van Leuven, member of Kern county mineral society, has organized an afterschool class in lapidary work at Kern county high school. Society members aid the class by contributing polishing material.

Paul A. Eymann, president of Sequoia mineral society, spoke on cutting and polishing of spheres at the February meeting of Kern county mineral society. The January field trip to the White river area was under the direction of T. V. Little and Frank Hoopes.

East Bay mineral society, California convention host, will hold a meeting April 24 for boys and girls of the East Bay area who are collecting minerals, or engaged in cutting and polishing. First prize winners will be eligible to exhibit in competition at the convention. East Bay devoted the first February meeting to a round table discussion on lapidary equipment and methods. Members described their pet schemes and gadgets. At the February 20 meeting a technicolor sound film "The Golden Sierra" was shown through the courtesy of Pacific Gas and Electric company.

Sequoia mineral society's February bulletin has a new letterhead, work of member Tom Goff.

Officers of Sequoia mineral society for 1941 are: Dora C. Andersen, president; Gates Burrell, vice president; Nellie Petersen, secretary-treasurer; Dessie Ethridge, assistant secretary; Elmer Eldridge, federation director; Jessie McDonald, Frank Dodson, Florence Chapin, board of directors. Virginia Breed and Hazel Goff edit the Sequoia bulletin. The society has decided to have a short social gathering at each meeting in order to become better acquainted, and to discuss field trips and specimens. Members will take more active part in future meetings, giving short talks on their favorite subjects related to minerals.

Imperial valley gem and mineral society met at Holtville high school March 4 for a study of fluorescence. Arthur L. Eaton was the speaker.

Raymond B. Yale lectured on beach gem stones at the February meeting of Southwest mineralogists in Los Angeles. Benitoite was discussed March 7 by Dorothy Akers.

Dr. H. E. McKibben, Santa Monica, California gemological society, reports finding an iris agate on the beach.

Percy F. Jones, past president of Los Angeles gemological society, described rare and beautiful gems of the world at the February meeting of Santa Monica gemological society. He illustrated his talk with paste replicas and genuine stones. The society visited Manhattan beach on the February field trip.

R. B. Yale illustrated with kodachrome slides his lecture on Prospecting the Beaches at the February meeting of the Los Angeles mineralogical society. The February field trip was planned to the property of the American potash company, out of Trona.

Alan Nichol, department of public works testing laboratories, Sacramento gave an illustrated talk on thin sections at the January meeting of Stockton gem and mineral club. He also spoke on the formation of crystals.

Stewart and Calvert have recently returned from another mineral hunting expedition in Mexico. They have shown some of their new material and lectured to various clubs, among them West Coast mineral society, Southwest mineralogists and Mineralogical society of Southern California. Stewart and Calvert are members of the latter society.

W. M. Grant, electrical engineer who for years has studied diatoms as a hobby, entertained Northern California mineral society at its February meeting.

Searles Lake mineral society members were guests of Los Angeles mineralogical society on a February field trip to Crestmore quarries.

O. C. Smith, former president of Los Angeles mineralogical society, lectured to the Orange Belt group at San Bernardino, California, February 6 on identification of minerals. He has recently published a book titled "Identification of Minerals Simplified." Smith has volunteered to give his lecture to any society south of the Tehachapis.

Mineralogical society of Arizona extends an invitation to staff and readers of Desert Magazine to attend their meetings held first and third Thursdays at the Arizona museum, 10th and Van Buren streets, Phoenix, Arizona. John Hilton, Harlow Jones and Max Felker were guests of the society January 16. They showed moving and still color pictures, and described diamond cutting tools. At a special meeting January 30. J. A. Theobald discussed soil alkali and its remedies.

Horace L. Thomson has a piece of cut and polished turquoise weighing 565 carats which he will present to the California federation Oakland convention. It will be awarded as a prize for the best cabochon and cut stone display exhibited by senior division of girls. The stone was cut by an Indian. It is three inches wide, three deep and one-half inch thick. Thomson exhibited it at the Riverside county fair.

Many good specimens of dumortierite are being found in the "desert mosaic" between the Ogilby-Blythe road and Picacho peak. Dumortierite is sometimes called California lapis lazuli.

Members of Golden Empire mineral society of Chico, California held their first field trip of the year February 16 under leadership of Howard Little. They found smoky quartz crystals near Lovelock, Nevada. These crystals appear both singly and in clusters; some are doubly terminated.

## MINERALIGHT

FOR BEST  
ULTRA-VIOLET  
FLUORESCENCE



Improved High Intensity Genuine Cold Quartz Lamps — Portable 6 Volt and 110 Volt Sets. Essential for prospecting and mining Scheelite.

Send for free list of fluorescent minerals, literature and Money Back Guarantee — Dept. DP 7

ULTRA-VIOLET PRODUCTS, INC.

5205 Santa Monica Blvd., Los Angeles, Calif.

LEARN TO PROSPECT!  
PLAN YOUR MINING DEVELOPMENT!  
STUDY GEOLOGY!

With Aerial Photographic Prints  
Contour maps made from aerial photos by  
NEW STEREO METHOD!

For information write to Dept. M  
FAIRCHILD AERIAL SURVEYS, INC.  
224 E. 11th St., — Los Angeles, — PR. 3007

## RED HOT! off the press

A profusely illustrated catalog listing all equipment and supplies needed for gem stone cutting and specimen polishing. There are enough to go around so send for your copy today.

This catalog describes our stock of  
LAPIDARY EQUIPMENT

LAPIDARY SUPPLIES

ROUGHED IN CABOCHON BLANKS

CABOCHON CUT GEM STONES  
FOR ART CLASSES AND  
PROFESSIONAL JEWELERS.

BOOKS ON GEMS AND MINERALS

VRECO DIAMOND SAW BLADES  
Large stock insures prompt shipment  
6" \$3.25; 8" \$4.35; 10" \$5.40; 12" \$6.50

## Read the Latest Book on Fluorescence Fluorescent Light and Its Applications

By Dr. H. C. Dake and Jack A. De Ment

This book fully describes the fluorescence of Minerals, Gems, Chemicals and numerous other substances. Ultraviolet lamps and filters used in fluorescence are described in detail.

ORDER YOUR ADVANCE COPY NOW — About 336 pages of fascinating reading and many illustrations — price \$3.00 postpaid. New book will be off the press on April 15th. ORDER NOW and be assured of an early copy. The FIRST COMPLETE single work in this field.

**WARNER & GRIEGER** 405 Ninita Parkway  
Pasadena, California

Ninita Parkway is one block east of the intersection of So. Hill Ave., and San Pasqual Sts.  
Our phone number is SYcamore 6-6423.

## THE 304 D. C. BLACK LIGHT ULTRA - VIOLET FLUORESCENCE

On your next Field Trip  
**DISCOVER HIDDEN VALUES**

With the Portable 304 D. C.



\$32.00

### Exclusive Outstanding Features

- Designed by practical men in the laboratory and field tested to insure its efficiency.
- Made especially to meet the requirements of the prospector and geologist in the field, small, compact, and light in weight.
- A powerful generator of invisible Ultra-Violet energy. Pure Fused Quartz burner, and special U.V. filter.

### — FIVE OTHER MODELS —

Send for Literature

## DALLONS LABORATORIES

5066 Sta. Monica Blvd., Los Angeles

## Covington Lapidary Equipment Used by the U. S. Government



Single-speed 16-inch lap unit assembled all ready to use with encased shaft and ball-bearing thrust, also removable Lap plate, crated, less motor.

\$34.90

Multi-speed unit as above for lapping, grinding, sanding and polishing, crated, less motor.

\$41.65

Build your own Lap Kit with our 16" removable lap plate fitted to 36" shaft, 2 bearings and ball bearing thrust to fit your table, with rust proof splash pan, crated

\$19.50

12" Kit as above, crated

\$15.00

For literature send to our dealers or—

**COVINGTON LAPIDARY ENGINEERING CO.**

12 Cajon St., Redlands, California

## HOBBY!! Make this yours

Nothing more interesting, entertaining, educational and so inexpensive. **GEM CUTTING** now made easy for the beginner. Cut the pretty stones you find on your hikes into Gem Stones.

Write for free folder or send 25c for interesting, illustrated, 22-page booklet describing the Johns Gem Cutter and the fascinating art of gem cutting.

**THE JOHNS COMPANY**

Dept. EI

Sappington, Missouri

# RAMBLING ROCKNUTS

On a rock-collecting and trading trip through the Southwest with her husband, Bertha Greeley Brown kept a notebook of her experiences—the places visited and the "rocknuts" she met along the way—and is writing about them for Desert Magazine hobbyists. This is the fourth article in her series.

BY BERTHA GREELEY BROWN

**T**HE delta land of the lower Mississippi is the last place a rocknut would consider prospecting, yet we got good material here. I must admit E. K. and I use a different collecting technique in Louisiana than in mountain localities. Instead of going to streambeds to analyze the gravels, we go to museums and contact some one in charge. Following this plan, E. K. visited the mineral department of the Louisiana state university and met Harold W. Fisk, assistant mineralogist. The two exchanged specimens. Polished redwood cubes from the Ginkgo forest of Washington and thunder-eggs from Oregon was E. K.'s contribution to the deal. For this he received fossilized wood (some wine and orange) found in Nachitoches parish, Louisiana.

"This," explained Prof. Fisk, "is wood of the Miocene age."

"Then that makes it a contemporary of the Washington redwood," was my husband's answer.

• • •

Mr. Brown's brother, C. J. Brown and his wife Berenice, took us to visit Rosedowns, an ante bellum estate north of Baton Rouge. Here in the graveled paths we found interesting bits of chert. (An impure flint, has a splintery fracture and is a member of the chalcedony family.)

It was the same type of chert as the arrowheads we had gotten in Arkansas, made by the Cherokee Indians, and the same quality of material we saw in chert gravels, under loess deposits, exposed by deep road grades near Natchez, Mississippi. Later we picked up the same reddish-brown chert in Port Arthur, Texas.

From Louisiana we headed toward the West again. Our first important stop was Beaumont, Texas. We stopped for a visit with Helen Balzer. She was not home, and while we waited E. K. sauntered over to a pile of gravel being used in the construction of a dwelling.

"What are you looking for in that gravel," exclaimed Helen a few minutes later when she returned.

"Petrified wood!" was the answer.

"Why, there isn't a sliver of petrified wood within a hundred miles of Beaumont."

"Then what is this?" He held in his hands a dozen pieces of mineralized wood, worn to rounded edges and polished slick as glass by natural abrasion.

"But where did it come from?" she asked.

"That is just what I am going to find out."

Next morning we started a merry-go-round of investigation. We quizzed the carpenter, the contractor and the manager of the gravel bunkers in Beaumont. Three days later, in Houston, Texas, we talked to S. G. Smally, production engineer for the Texas Construction Material company and gained the following information: The gravel came from deposits in the vicinity of Houston. Mr. Smally augmented this by saying, "After every flood stage, one can find all kinds of fossils, including mastodon bones, on the bars of the Brazos river, just west of here."

We had our answer. Over a period of untold millions of years, these gravels and fossils, called "Southern drift" by geologists, were transported into this depositional area. Flood forces erode and expose them.

• • •

We met Dr. and Mrs. C. T. Lill at Mr. Smally's office. Ten days had elapsed since we

said goodbye to them in Santa Fe, New Mexico. Our paths had crossed twice in this time. It had been a "hello" in Baton Rouge and a dinner together in Beaumont. Again we were starting our adventures in partnership.

The four of us went to Hermann park in Houston and in a museum there saw verification of all Mr. Smally had said about the finding of fossils in southeast Texas. We lunched at the home of Mrs. Lindsay P. Pierce, Dr. Lill's sister, and with manners like beggars, we ate and ran. Soft moonbeams shimmered across the Gulf of Mexico as two cars skimmed along the shore road toward the citrus belt of Texas.

The weather was stifling in the lower Rio Grande valley but E. K. had given the ultimatum. "I'm staying here in spite of heat and humidity"—so we all stayed. We cabined at Pharr, Texas, and worked the gravel beds along Highway 83 towards Laredo. The agate bearing bars, according to J. E. Applewhite, rock hobbyist of Laredo, extend 40 miles above that city.

Roy Palfreyman, living at McAllen, Texas, has collected for many years and advises hunters to visit the Rio Grande territory in the winter—summer weather is hot. In late October, we found it scorching.

The agates found in this Texas locality are either in limestone or recently have eroded out and lie at the base of cliffs and on river bars. Collectors have advanced many theories for their occurrence in limerock but geologists agree agates originate in the pockets of this stone as well as in gas pockets of lava. Therefore it seems plausible those still in the rock are *in situ*. All loose rock is covered with a coating of lime and this makes it hard to distinguish the agates from ordinary gravel.

The first day the Lills dropped the agate search and began exploring the hills for rare cacti.

"There's not a stone worth picking up," declared Dr. Lill. When Eula Ferguson, of La Feria, Texas, who was with us that day, showed him some beauties she had found, he took heart, adjusted his glasses and began the quest anew. The second afternoon the Lills had many gems they were holding tenderly, contemplating with pride, licking with their tongues and calling "little honeys."

• • •

At Roma, Texas, a border town, we stood in a petrified forest owned by Zenon Pena, the village barber.

"Thousands of sections of petrified trees — 20,000 arrowheads," was printed on the card he handed me. I never saw so much wood stacked in one pile and many sections looked like telephone poles.

"All from Pecos county," he explained.

Our cars hugged the ground when we left Zenon's place and turned westward toward the Big Bend country of Texas. There were many miles to cover so we lashed our gasoline steeds and galumphed ahead.



**RX—the complete lapidary shop in one small machine**

Write for circular and free working chart.

**W. A. FELKER 3521 Emerald St., Torrance, California**



## PREMIUMS AWARDED MINERAL DISPLAYS AT INDIO

Mineral department at the Riverside county fair February 20-23, in charge of John Hilton, was one of the most attractive displays in the whole show. Really worthwhile prizes were awarded. First in class 30—best and most interesting display of mineral resources, gems and gem material—went to J. C. Filer of Redlands. It was \$50.00 cash and a beautiful trophy—a golden bowl mounted on polished onyx. Other winners in this class were Horace L. Thomson, Joel Hauser and Fred Markham of Smoke Tree ranch, Palm Springs.

Uncut gem material awards went to Ralph Willard, Escondido; Billy McGee, Pala; Jack Frost, Coachella. Cut and polished division prizes were awarded George Ashley, Ramona; Ralph Willard, Escondido; Horace L. Thomson, Hollywood.

Beautiful specimens from all parts of the world were on display.

George Gamble, of the Proctor and Gamble corporation, has reopened the historic Knoxville cinnabar mine. The new furnace treats about 100 tons of ore daily. Most of the material is taken from the old dumps, but development of underground deposits is progressing. In the '80s the Knoxville was one of the leading mercury producers of the world, employing 600 men at the peak of its activity. Today there are 43 men on the payroll.

Soapstone from the deposits between La-trobe and Shingle Springs, California, is used in the manufacture of roofing and composition roofing materials, in making insecticide spray, and by the paint and rubber industries. Soapstone is also shipped to Central America where it is mixed with insecticide chemicals to destroy mosquitoes and other insects.

## BRAZILIAN AGATE

Fine cutting material and colorful slabs.  
Largest stock in the west.

**CHESTER TEAGUE**

South Walnut Ave. San Dimas, Calif.  
"Just a Short Drive from Your Home"

**EYLES**  
'STREAMLINER'  
**PRODUCTS**

FORMERLY DISTRIBUTED BY DISTINCTIVE  
GIFT AND GEM SHOP

NOW DISTRIBUTED EXCLUSIVELY IN  
LOS ANGELES COUNTY BY

**E. L. SCOFIELD, JR.**

527 CONCORD STREET • TELEPHONE 290  
EL SEGUNDO, CALIFORNIA

MAY WE CONTINUE TO  
SUPPLY YOU WITH

DIAMOND SAWS • SAW CARRIAGES •  
BALL BEARING LAPS • ALSO "BYFIELD"  
FELTS, FLATS, STRIPS, WHEELS • CAR-  
BORUNDUM GRITS • GRINDING HEADS

## MANY PRIZES AWARDED AT IMPERIAL FAIR

Gem and mineral collectors of Imperial county, California, won cash prizes amounting to \$549 by entering their choice specimens in the annual Midwinter fair held at Imperial the first week in March. In addition to entering many specimens in the prize competition, members of the Imperial society arranged a large display which was one of the focal points of interest for fair visitors.

Premium winners were:

Lode gold—S. P. Smyser, Holtville, 1st; Thomas M. Smith, Brawley, 2nd.

Copper ore—Thomas M. Smith, winner.

Iron ore—Thomas M. Smith, winner.

Group minerals—L. E. Richardson, Holtville, winner.

Soapstone, talc, pumice—Charles R. Correll, El Centro, winner.

Uncut gem materials—L. A. Beale, El Centro, 1st; Sam E. Payson, El Centro, 2nd; Ross K. Tilton, El Centro, 3rd.

Spotted gem materials—T. C. Schmidtman, El Centro, 1st; L. A. Beale, 2nd.

Cut and polished gem material, non professional—L. G. Beale, El Centro, 1st; Mrs. L. E. Richardson, 2nd; Sam E. Payson, 3rd.

Cut and polished gem material, open—L. G. Beale, 1st; Sam E. Payson, 2nd.

Petrified wood, rough—Sam E. Payson, 1st; Charles E. Holtzer, Imperial, 2nd; Charles R. Correll, 3rd.

Petrified wood, spotted—T. C. Schmidtman, 1st; Newport Sproule, 2nd; L. A. Beale, 3rd.

Cut and polished petrified wood—Newport Sproule, 1st; L. A. Beale, 2nd; T. C. Schmidtman, 3rd.

Crystals—Charles R. Correll, 1st; Charles E. Holtzer, 2nd.

## CHALCANTHITE IS FOUND AT TUMCO MINE

Mrs. Lloyd Richardson of Holtville, California, on a recent field trip to the Tumco mine, is credited with finding some very fine copper specimens, among them chalcantnite. This mineral is hydrous sulphate of copper, formed by oxydation of chalcopryite. Being completely soluble in water, it is found only in dry, desert localities. Its characteristics make it easy to distinguish. It is quite soft, brittle, and bright blue in color, but its notable qualities are its ready solubility and the fact that, to the taste, it is nauseous and disagreeable.

## Rockhound

Pasadena, California  
BY ORLANDO H. WEIGHT

The desert is calling and I must go  
To a rock hound heaven where geodes grow  
As big as your head. There I'll seek to wrest  
Some amethyst rocks from their hidden nest

The cases encircling these jeweled things  
Are jasper and agate in wavy rings.  
I'll cut them in half with a diamond saw  
And the polish they'll get will leave no flaw.

Then I'll set them up on a shelf at home,  
Reminders of days when I used to roam  
The desert, learning the secret it shields  
Of new agate nodule and geode fields.

When old, the dreams that these treasures unfold  
Will be dearer to me than miser's gold,  
And some day while dreaming of desert I know,  
In Dreamland, I'll pack up my kit and go.

## Cogitations . . .

### Of a Rockhound

By LOUISE EATON

Prospectors shure is lots uv help to rockhouns. They prowls into unexplor-ed canons 'r mountins lookin' f'r gold 'n silver 'or strategic minerals. 'n notes all th' rocks layin' aroun'. They has trained, sharp eyes which spot eny un-usual specimens. Then, later on, maybe days maybe years later, prospector 'n rockhoun meets up 'n gets to talkin'. 'N th' first thing anyone knows, th' rockhoun has found out wher ther's a new thunder egg bed, 'r a field of crystals, 'r some good agates. Shepherders also is useful this way.

Rockhouns knows deserts 'n moun-tins most bettern anyone, cause they gets right down to earth. Th' best way to become acquainted with scenery is to travel it on foot. Autos zips along high-ways so fast that details blurs. Even horses 'n burros keeps their riders off th' ground. But rockhouns has to walk. They knows how sand feels diffrent from gravel; they can choose safe footing on rocks; dodge most uv th' cholla; they discovers that most every desert plant has its thorny protection; 'n they sees scurrying lizards that seek shelter in shadows of plants never glimpsed from th' paved road. They knows th' regular desert flowers 'n rejoices in findin new ones. On foot is th' exactest way to learn about th' country, 'n rockhouns always travels on foot—when they don't crawl on hans 'n kneez.

## AUCTION DONORS TO GET 50-50 SPLIT FROM SALE

The committee in charge of the sixth annual convention of the California Federation of Mineralogical societies to be held at Oakland on May 10-11, has initiated an idea in connection with donation auctions, which it is hoped will bring out exceptional mineral specimens, especially from the amateur collector. Instead of expecting the donor to give the specimen outright, he will receive 50 percent of the auction price. The outcome of this experiment will be watched with interest as it may have a bearing on the future policy at other mineral conventions.

NOW — A COMPLETE

## Home Lapidary

For the amateur and student. The most practical home lapi-dary obtainable. Slices, grinds, pol-ishes. Precision-built. Compact.

**\$37.50**

## LAPID-RITE

GEMSTONE CUTTING AND  
POLISHING MACHINE.

If you are interested write or call and I'll send you the instruction book for this machine. — H. L. Thomson.

Price is F. O. B. Los Angeles — Does not include 1/4 H. P. Motor or 8" Diamond Saw blade.

**THOMSON** Mineral  
Laboratories

4312-14 Sunset Blvd., Los Angeles OL. 7483

— SPECIAL —

LARGE SAWING—5c Per Square Inch  
**STONES CUT AND POLISHED**

- Petrified Palmwood Gems
- Petrified Wood Gems
- Mineral Specimens
- Indian Turquoise Jewelry
- Blank Silver Mountings

**RAINBOW GEM CO.**

546 W. Mission Dr. San Gabriel, Calif.



**Hand-Made Jewelry  
To Fit Your Gems**

Ring shown — \$4.00, solid  
Sterling silver—with your  
stone mounted.

**Jewel Craft**

704 S. San Pedro, — Los Angeles — TU. 5554

**FOR BEGINNERS**

**SPECIMEN BOX**—15 different gems—minerals, labeled. Includes copper ore, tourmaline, petrified wood, marcasite, silver galena, rose quartz, dumortierite (desert lapis), turquoise, agate, jasper, Iceland spar, Onyx, fluorite, obsidian and gold ore. Small hand lens .....\$1.00

**NEW WONDER SET**—Contains 18 different gem and mineral specimens. Includes streak testing block, mounting glue, hand lens, mounting cards and instruction manual ..... \$1.50

Hardness sets, for identification .....50c  
(Postpaid—Add sales tax in Calif.)

**DESERT CRAFTS SHOP**

El Centro, California

**MINERAL SPECIMENS**

Hundreds of fine minerals. Cutting and polishing material. Student's 24 piece set \$1.00. Excellent crystal groups. Fluorescent minerals. Polished pieces. Mineralights for field and home use.

**JOHN R. WALKER**

5608 LaMirada Hollywood, Calif.

**MINERALS**

**PROSPECTOR'S SET — 50 SPECIMENS** in 1x1" compartments in sturdy, cloth covered, hinged lid box for \$2.00, postage 25c. Visitors say our store has the **largest stock** of minerals, the **best display** and **lowest prices** west of the Rockies.

Headquarters for fluorescent lights  
and minerals.

Store open on afternoons only including  
Sunday, but closed on Mondays.

**PACIFIC MINERAL MART**

687 Redondo Ave. Long Beach, Calif.

— PERSONAL —

I hit it rich in Arizona and Mexico. Got the richest, showiest and colorful **CHRYSOCOLLA, AZURITE, OPAL, SELENITE, COLEMANITE, WULFENITE, VANADANITE, PYRITE** and other material yet! Rock folks near and far should see this quick. I'm selling it wholesale. So hurry! My diggin's is 401 Broadway Arcade Building, 542 South Broadway, Los Angeles, Calif. Michigan 2264. "**ROCKY**" MOORE.

**CALIFORNIA CONVENTION  
TO HAVE "SWAP ROOM"**

A novel plan for collectors who would like an opportunity to do some trading at the Oakland-Berkeley, California federation meeting May 10-11, has been arranged by the committee in charge.

A special room will be provided for the traders. They may bring card tables, or obtain them with a nominal tip to hotel attendants, and display the rocks and gems they wish to exchange. In fairness to dealers who have rented booth space, no selling will be permitted. The room is to be supervised so that the owners need not always be present to watch their materials. The privilege of the "swap room" will be extended to all who purchase the \$1.50 convention door prize ticket.

**SAGENITE**

Sagenitic quartz and sagenitic agate both differ widely from their nearest kinsman moss agate. While moss agate contains only stains of such minerals as manganese dioxide, the inclusions in the sagenite are generally real crystals, and were crystallized before the silica itself. Probably the most beautiful of these crystals are slender, golden hairs of rutile. Sometimes one, often a network, of these golden crystals appeared from the cooling magma, only to be completely covered and sealed in the clear silica gel and become the fine sagenite agates of this day.

A complete list of the crystals and other substances included in sagenite or quartz would be impossible, but on this list would be found black tourmaline, carbon, actinolite, pyrite cubes, chalcotrichite, chlorite, water, oil, and thirty or forty others. The shape, size and color of the inclusions vary greatly, and give rise to many such local names as "straw agate" and "deer hair agate."

**SPENDING THE CLUB MONEY**

"What," inquires Dora Anderson of Parlier, California, "do the various mineral societies do with their money?"

It would be interesting to hear from the different clubs on this subject.

With its funds, Imperial Valley Gem and Mineral society plans to purchase a cold quartz fluorescent light as soon as possible. Members have just secured an ordinary lamp with powerful globe to be used at regular meetings, because the lights in the courthouse are inadequate.

Some of the funds go toward defraying expenses of two representatives to the state convention, and also to pay federation dues. Some money is used to sponsor a booth at the Imperial Valley midwinter fair. A case of specimens has been placed in the main lobby of the county court house. Club stationery costs something.

The great dream of the society is a club house of its own with complete lapidary equipment.

George Needham D. Sc., F. R. M. S., of northern California mineral society, has organized another class in the preparation of micro-mineral mounts. The class which recently completed the course felt well repaid for their efforts. New officers for the year are: I. Harold Soper, president; E. A. Robertson, vice-president; A. L. Rogers, secretary; M. W. Hanna, treasurer; C. A. Bryant, curator; Harriett Thompson, librarian; A. C. Davis, W. N. Lamore, Stanley Sneed, directors.

One of the finest specimens of amethyst geode to be seen in Southern California is on display at the Warner and Grieger shop in Pasadena. Exceptionally rich in color and beauty, the geode is 18 inches in diameter. It is one of the many fine specimens recently imported from Brazil by John Grieger.

**MINED WITH PUMPS  
MERCURY MAY BE**

Writes C. A. Anderson of Nipton, California, "It is reasonable to suppose that in the future, mercury will be pumped out of wells in the ground, just as oil is now. Cinnabar, mercury sulphide, our chief source of supply at present, is really only a secondary source. Cinnabar is left in veins or ledges near the surface, while native mercury, due to its great specific gravity, filters downward through the earth's crust and forms pools, similar to pools of oil.

Important mines of lead produce cerussite and anglesite near the surface, but after sinking from one hundred to four hundred feet, galena or lead sulphide is found. Copper mines often find azurite and malachite near the surface, and down below them, native copper. Therefore, it is reasonable to suppose that future quicksilver miners will look for the native metal at great depths, and pump it to the surface.

Edward L. Wheatfill, instructor in geology and mineralogy in Fullerton junior college, lectured on "Radio active minerals and their occurrence" at the January meeting of the West Coast mineral society. Charles Knowlton displayed a phosphorescent disk made by cementing fine abrasive paper to a thin board, then holding phosphorescent minerals against it while rotating in order to make concentric circles. Under the ultra violet light some interesting effects were produced.

**GEM MART**

Advertising rate 5 cents a word,  
\$1.00 minimum an issue.

**HAVE TO GO EAST** on account of inheritance want to sell Colorado Gem Co., building, equipment, stock, etc. Less than cost to close out as soon as possible. Write Colorado Gem Co., Bayfield, Colorado.

**ATTRACTIVE SOUTH SEAS CORAL**, Lace 50c, Branch 45c, Mushroom 40c, Rare coral plate \$1.50 each. F. W. Sprung, Rt. 1, Box 566, La Canada, California.

**WANTED:** Mineral specimens, crystals, gemstone, rare and "freak" rock. Send samples and prices—samples will be paid for or returned. **ROCKY MOORE**, 401 Broadway Arcade Building, Los Angeles, California. (Wholesale Buyer.)

**AUSTRALIAN OPALS.** Direct from Australia. Large stocks, Green, Black, Fire, Boulder Opals. Collectors' Parcels—Dozen Good Specimens \$5.00. Lapidaries' Parcels—10 oz. assorted cutting Opal \$10.00. Numerous clients, Lists Free. N. D. Seward, "Opal House," 457 Bourke Street, Melbourne, Australia.

**AGATES, JASPER, OPALIZED** and agatized woods, thunder eggs, polka dot and other specimens. Three pound box \$1.25 postpaid. Glass floats 25c and up. Sawing and polishing. Jay Ransom, Aberdeen, Wash.

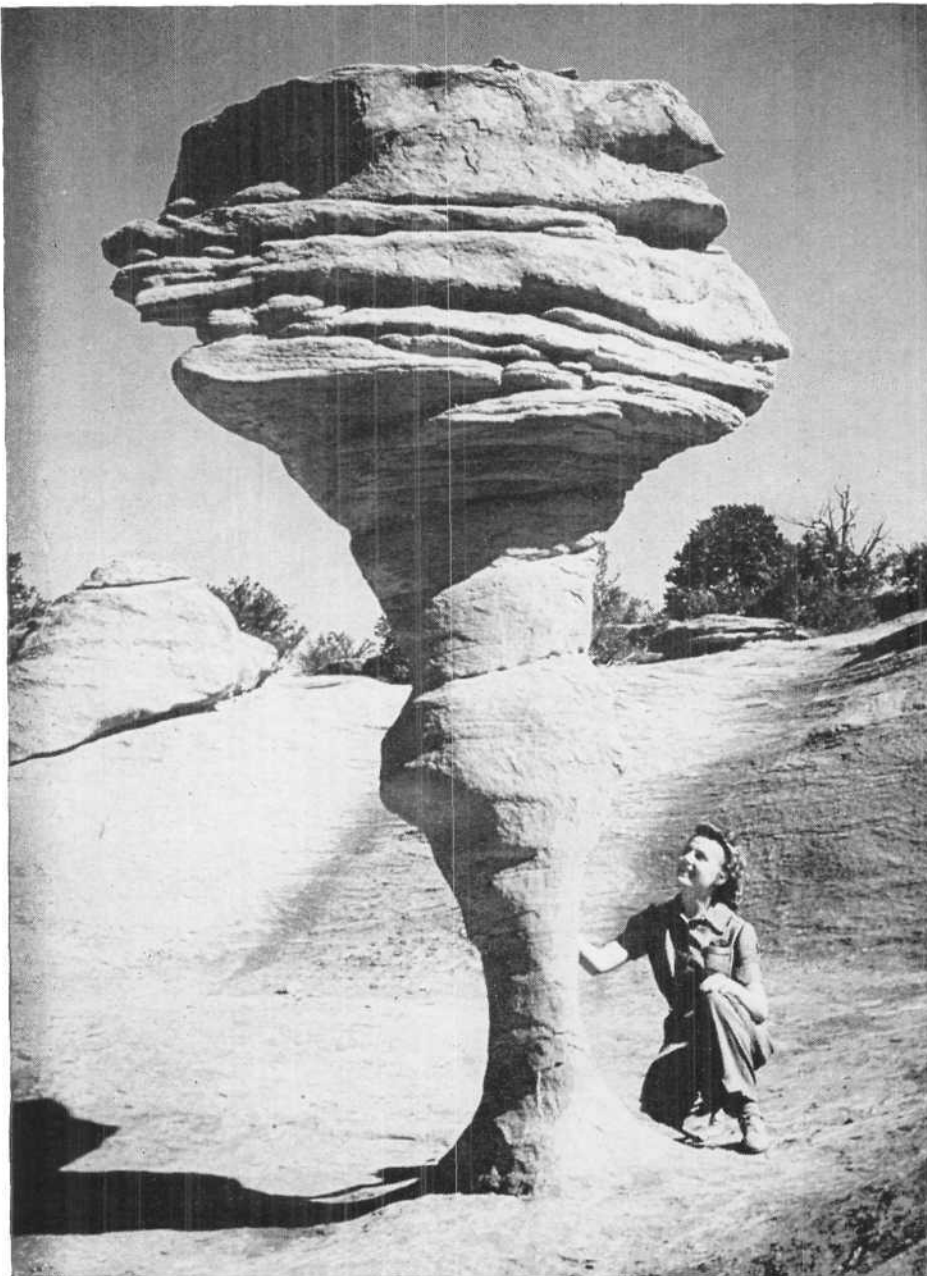
**WANTED:** Cutting material and showy crystals. 7724 South Main St., Los Angeles, Calif.

**AN INVITATION:** Want to know where to hunt rock? Want a rock sawed in half? Want rock identified? Want to see a world-wide collection of rock? Want to sell rock? Want to buy rock? Want to talk rock? Want information or equipment for cutting and polishing rock at home? Then drop in on me. I rock folks to sleep. "**ROCKY**" MOORE, 401 Broadway Arcade Bldg., 542 South Broadway, Los Angeles. Any day but Saturday or Sunday—Monday and Fridays until 8 p.m.



# Freak Rock in Utah

Who can identify this picture?



## Prize Contest Announcement

Nature spent a million years, more or less, carving out this strange rock. Looks like it might have been a stool for some prehistoric race of giants.

This rock is located in Utah, and because of its odd shape visitors go out of their way to take pictures of it.

In order that Desert Magazine readers may know more about the rock and the place where it is found, a prize of \$5.00 will be paid to the person who sends in

the best descriptive story of not more than 500 words. The rock should be described as to approximate size, geological history, and location as to towns and highways. Entries must reach the Desert Magazine office not later than April 20, 1941, and the winning story will be published in the June number of this magazine.

From several sources, the Desert Magazine has received a rather complete story of the old soda works plant in the Death Valley region which was the subject of the Landmark contest in January. This information will appear in the May number, together with an old photograph of the plant at the time it was in operation.

## THE SPIRIT OF

# 76

by JOHN CLINTON



I like radio. Our old box is turned on almost every night. But when it comes to swing music—well, I'm not a hep cat. And I can take my boogie-woogie or leave it alone. The only rug I ever cut was under the living room table when I was fixing the lamp cord.

So, I'm always on the lookout for a "different" kind of radio program—one that is fun to hear, and that "does something" for me. And now, in case you're still reading, I've found a dilly.

It's called "Point Sublime." And it's on the NBC red network every Monday night at 8:30, Pacific Coast Time, except the stations in Bakersfield, Sacramento and Stockton—where it goes on at 9 o'clock. (Of course, if you live where your clock ticks out Mountain Standard Time, you'll hear it at 9:30.)



But anyway, Point Sublime is a series of programs about a fellow named Ben Willett. Ben sort of runs Point Sublime—which is a little village on the coast—and manages to get into and out of more amusing situations than you could shake a stick at. He's sort of a combination of Will Rogers, David Harum and your own Uncle Clem, back home.



Each show is complete in itself, so you don't have to listen every week. But I think if you listen to one, you'll listen to all of 'em. Anyway, take a tip from Clinton, and listen. The sponsor is, as you've probably guessed, Union Oil Company. And if you like the show—will you drop me a line, so I can tell 'em? Thanks.

UNION OIL COMPANY



By RANDALL HENDERSON

**W**ILD LILIES already are in blossom on the desert lowlands, heralding what promises to be the most gorgeous parade of wildflowers displayed on the desert in many years.

The desert lily grows from a bulb buried deep in the sand, often from one to two feet below the surface. Unless Nature is generous with her rainfall, water does not seep down to the deepest bulbs, and they remain dormant for years.

This season the sands of the desert are saturated with moisture and the deepest of the lily bulbs are sending forth tall stalks crowned with exquisite blossoms.

Verbena and primrose and salmon mallow are showing blossoms in some areas. By the last week in March the lower levels of the desert should be a blaze of color, and the flowering season will continue through April and May, the blossoms on the higher levels of course coming later than those on the plains below.

Never, in 30 years on the desert have I seen the landscape so green—nor the promise of so colorful a flower display as there is this season.

\* \* \*

The spring rains have brought out the flowers—also the poets. Oh, I can understand why folks want to write desert poetry at this time of the year. But it is not always clear to me why they insist upon sending their effusions to the editor. The warehouse where I keep my surplus supply of verse is overflowing with beautiful sentiments these days. But that is all right. I hope they keep on writing them. We need more poetry in this world. But the place where the need is greatest is in people's lives—rather than on the printed pages.

\* \* \*

A word of appreciation this month to all those who have contributed through the Anza Memorial Conservation association to the fund for acquiring additional lands for the great Anza desert state park in Southern California. The fate of the park is still hanging in the balance—depending on the foresight and courage with which the California State park commission meets the issue. A complete report as to contributions and their disposal will be made in a later number of *Desert Magazine*.

\* \* \*

One of the clippings in my scrapbook is a quotation from Osa Johnson, written for the *American Magazine* four years ago during one of her trips home to the United States after a sojourn in the African jungle. She wrote:

"... The dangers of the jungle are trivial compared with the dangers of civilization. Nature made the one,

man made the other. I have implicit trust in Nature's goodness.

"On this trip to America I find myself surrounded by human beings more dangerous than animals. They are capable of killing, not just to satisfy hunger, but to satisfy pride, appearances, ideas. I have encountered strikes, riots. I have heard frightful rumblings from abroad. I have read of lynchings, or whippings, of secret societies bent on vengeance. I have learned that in one year 30,000 men and women, snapping under the strain and tension of civilization, have taken their own lives. And always before my eyes is the ever-mounting toll of the motorcar. Even little children are victims of haste and excitability.

"Hunger is not the motive of all this cruelty of civilized man—not the ravenous life-or-death desire for food that the jungle knows. The only hunger I find in the modern world is the hunger for luxuries, for unusual sensations, for greater wealth. It is the hunger of pride and false evaluation, the hunger for more, not just enough. There is little sharing. There is more outstripping.

"... I grant I have been so long away that I do not understand civilization—why it rears ugly things upon green places, why men and women tenaciously and savagely cling to ideas that don't matter, how people can imagine that the possession of more things than another person owns can improve their lives and make for happiness."

That was written by a woman who had spent many years close to Nature in the jungle. It reflects very accurately the conclusions I have reached after many years of close association with Nature in the Desert.

Whether it be in jungle or desert, Nature operates her universe under a code of rules that can bring peace and happiness to humans—or misery—according to their own choosing. If you would become more familiar with those rules—I would recommend a sojourn in the desert. All the great religious philosophies of history were conceived in the solitude of God's arid wilderness.

\* \* \*

Dr. A. E. Douglass, astronomer and tree-ring expert of the University of Arizona says we are probably entering a wet cycle of years. He bases this prediction on a study of his tree-ring calendar which now dates back nearly 2000 years. All of which causes some of the desert folks to suggest that perhaps the cacti will start growing leaves again as they did a million years ago. Nature has wrought some wondrous miracles on the desert—but she takes her own sweet time about it.





## Miner's Compass

BY GEORGE OLIN

*Ferocactus wislizeni* (Engelmann) Br. & R. is one of the most common of our native bisnagas. Its range is so great that we share it with our Mexican neighbors south of the border. Throughout that vast desert region which lies adjacent to the southern borders of Arizona and New Mexico it can be found in abundance. The western limit of its range is the Colorado river, and its habitat extends east through New Mexico into Texas.

Of all its common names, the most appropriate is "the miner's compass." This name has been applied to others of our native *Ferocactus* but the characteristic growth of *F. wislizeni* makes it most appropriate for this species. Upon reaching a height of about two feet the plant begins to lean towards the south. As it grows older this tendency often becomes more pronounced and it is not at all unusual to find old specimens which have inclined to such an angle that the roots have given way and allowed the plant to fall prostrate on the ground. If it does not become partially embedded in the sand it will live and flower in this condition for many years.

The miner's compass is one of our largest native cacti. It will reach a height of six feet or more and will sometimes be more than two feet in diameter. It is ordinarily a solitary plant but if the tip should be injured it will break out into several heads. The plant body has as many as 25 ribs. These are covered with areoles about one and a half inches apart.

The spines are numerous and range from grey to red in color. They form one of the most positive means of identification of the plant. There are two or more central spines but at least one of them will

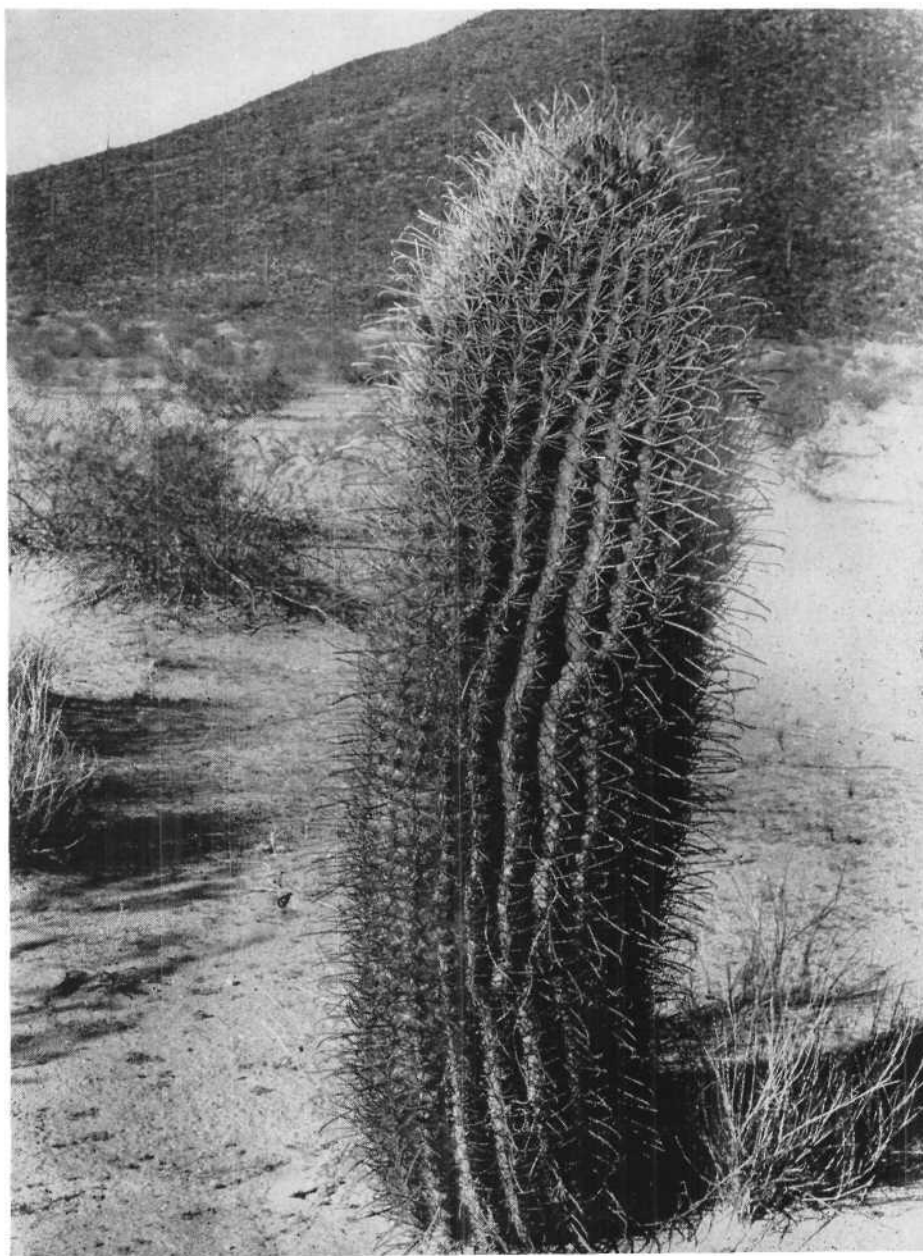
be flattened and strongly hooked. Radial spines will be absent in very young plants but will grow out as long twisted bristles in the more mature specimens. (Other native *Ferocactus* have straight centrals and well developed spines for radials.)

The yellow flowers are borne around the tip of the plant and are shown to their best advantage because of the habit of growth. The fruit is yellow, scaly and quite large. The seeds are numerous — a dull black in color.

It would seem that a plant so large and common would have been used in some way by the natives but there is little information on record to bear this out. The flesh is said to be inferior to *F. covillei* for candy making but Standley states that the Pima Indians ate it after cutting it in strips and boiling it.

*Ferocactus wislizeni* is one of the native cacti which can be transplanted and grown in cultivation. It prefers a well drained, sandy soil. Remember, however, that our desert flora is protected by stringent laws. Unless you have legitimate use for a specimen, a permit will not be given.

*This specimen of the common Arizona barrel cactus was photographed by the author in the Crater range between Gila Bend and Ajo, Arizona.*



**RARE CACTI**  
OUR BEAUTIFUL NEW CATALOG  
36 fascinating colored pages NOW READY Lavishly  
illustrated Hundreds pictured and described  
with full cultural directions. A handbook  
of Cactus lore. FREE TO CUSTOMERS.  
If wanted for reference 10c is appreciated to cover mail-  
ing costs. A real garden hobby. For your copy Write Now!  
JOHNSON CACTUS GARDENS P. O. Box T-1  
HYNES, CALIF.

### SLIM'S MUSEO DEL DESIERTO

Natural Gifts of the Desert —  
**CACTI — ROCKS — CURIOS**

Dish Gardens — Smoke Trees — Shrubs  
Rocks & Minerals — Fluorescent Spec-  
imens — Mineralights

In Palm Springs—On Indian Ave. Just  
South of Indian Mineral Springs

**CACTUS SEEDS**  
**PLANTS**  
Surprise packet mixed seed 25c  
with growing directions and illus-  
trated catalog of hundreds of rare  
cacti and succulent plants, seeds.  
**R. W. KELLY, Box 235D**  
Tempe City, California

# GUIDE MAPS for EXPLORING the Desert



## BOOK ONE

INCLUDES MAPPED TRIPS TO

Dinosaur National Monument, Utah  
White Sands National Monument, New Mexico  
Bloodstone field, California  
Hidden Valley, Joshua Tree Nat. Monument, California  
Monument Valley, Arizona and Utah  
Toro Peak, Santa Rosa Mountains, California  
Antelope Valley Museum, California  
Old Turquoise Mines, California  
Petrified Forest, Arizona  
Odessa Canyon, California  
Havasupai Canyon, Arizona  
Deep Canyon, Santa Rosa Mountains, California  
Hidden Forest of Nevada  
Fossils and jasper, Old Beach line at Blythe, California  
Enchanted Mesa, New Mexico  
Crystal and Geode field, 29 Palms, California  
Mary Lode Gold mine, California  
Hopi Snake Dances, Arizona  
Carlsbad Caverns, New Mexico  
'Apache Tear' gem field, Arizona  
Split Mountain Canyon, California  
Carnelian field, Saddle Mountain, Arizona  
'Cathedral Town' in Mojave Desert, California

• • •

## BOOK TWO

INCLUDES MAPPED TRIPS TO

White Mountain peak, California  
Old Tourmaline mine in California  
Boulder City gem field trip, Nevada  
Historic Tinajas Altas waterhole, Arizona  
Agate fields near Barstow, California  
Yuba Oyster Shell beds, California  
Fairy Cross gem field, New Mexico  
Trail to Utah Gem rock, Utah  
Wupatki National Monument, Arizona  
Old Copper City mining camp, California  
Meteor Crater, Arizona  
Ginkgo State park, Washington  
Turtle Mountain Gem field, California  
Ancient Indian Salt caves, Nevada  
Lost Palm Canyon, California  
Onyx Field in Orocopia Mountains, California  
Mortero Palm Canyon, California  
Rillenstein Field trip, California  
Trail to 49 Palms, California  
Hwoye Spring Inscriptions, Arizona  
Swansea Mining Camp, Arizona  
Palm Canyon, California

You'll find them in the  
back files of

THE **Desert**  
MAGAZINE

Maps and Travel Information that will guide you to . . .

- Remote and little known canyons
- Fields where you may gather gems and minerals.
- Trips that you may take by auto, or hikes deep into the unexplored wilderness
- Camping trips into scenic areas
- Trips into the heart of the Indian country
- Motorlogs to historical landmarks

In order to meet a widespread demand for mapped trips that will enable weekenders and vacationists to go deep into the desert areas without fear or hazard, the Desert Magazine staff has selected 24 issues from its reserve supply of back files and combined them in two volumes of 12 copies each—bound in permanent loose-leaf binders. These are available, postpaid to you at . . .

ONE VOLUME ..... \$3.00

BOTH VOLUMES ..... \$5.00

(See accompanying index of the trips mapped in these volumes)

These volumes are made up of regular issues of Desert Magazine published during the last three years, copies selected because of their special value to desert travelers.

### COMPLETE DESERT MAGAZINE FILES

A very limited number of complete Desert Magazine files for the first three years of publication, November '37 through October '40, are now available. While the supply lasts they will be mailed postpaid at the following prices:

VOLUME 1, without binder .....	\$5.00
VOLUME 2, without binder .....	\$4.50
VOLUME 3, without binder .....	\$2.50
FIRST 3 VOLUMES COMPLETE .....	\$10.00
FIRST 3 VOLUMES COMPLETE, with loose-leaf binders .....	\$12.00
FIRST 3 VOLUMES minus issues of Nov. '37, Feb. '39, May '39 .....	\$5.00
Single back copies, except the three numbers listed above, each .....	25c
Loose-leaf binder, for 12 copies .....	\$1.00

Address **DESERT MAGAZINE**, El Centro, California